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# UNITED STATES DEPARTMENT OF AGRICULTURE

M. Bean

## Agricultural Research Service

# and The Agricultural Experiment Stations

# of the United States

Quality Characteristics of Cultivars and New Germplasm of Wheat Bred and Grown in the Western States1/

Thirty-Seventh Annual Report

of the

Western Wheat Quality Laboratory

1984 Crop 2/

WRU No. 5802-20050-010

G.L. Rubenthaler, H.C. Jeffers, P.D. Anderson, A.D. Bettge, D.A. Engle, and P.A. Sperry

Oct. 1985

- In cooperation with the Arizona, California, Idaho, Montana, Oregon, Utah, and Washington Agricultural Experiment Stations who developed and grew the experimental wheat selections studied.
- This is a Progress Report of cooperative investigations of the milling and baking characteristics of current commercial cultivars and new germplasm of wheat grown in the Western states. Interpretation of the data may be changed with further experimentation; therefore, data in this report are not for publication, display, or distribution without prior written approval of the Agricultural Research Service, USDA and the cooperating agencies concerned.



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# Thirty-Seventh Annual Report

# of the

# Western Wheat Quality Laboratory

# 1984 Crop

	Page
TABLE OF CONTENTS	ii
SUMMARY OF ACCOMPLISHMENTS	iii
INDEX OF NURSERIES	v
ABBREVIATION DESCRIPTION	vii
INTERPRETATION OF DATA	viii
INTRODUCTION	1
METHODS	2
PUBLICATIONS AND REPORTS (CY 85)	12
INVITED TECHNICAL PRESENTATIONS	13
VISITORS	15
SUMMARY LIST OF EARLY GENERATION NURSERIES EVALUATED	16

Western Wheat Quality Laboratory 1984 Crop

## SUMMARY OF ACCOMPLISHMENTS

Evaluation for end-use milling and baking quality of 1796 experimental wheat crosses grown and harvested as the 1984 crop were made. The selections were submitted from the wheat breeding programs in the Western states. To-date analysis and evaluation has been completed on about 190 selections from the 1985 crop. Test criteria used to determine acceptability were flour yield, protein, ash and color; cookie diameter; loaf volume and crumb score; dough mixing requirements and water absorption; Japanese sponge cake volume and texture; Udon noodle yield, texture, color and score; and some developed test for Middle-Eastern style flat breads. Many of these experimental selections were judged as having acceptable end-use quality fitting their market classes. This work is an integral part of the wheat improvement programs to assure release of good agronomic and high quality wheat varieties. Results of the analysis can be found in the tables of data in Nursery Codes #1 through #68. See the Index of Nurseries (Page v ) for nursery titles, locations, and breeders.

In addition, the evaluation of milling and baking properties were made on 1458 early generation selections from the wheat breeding programs that were grown in 1984. Studies included materials from snowmold, foot rot, dwarf smut, yield trial, and various crop management studies. 288 (20%) of the experimental crosses were rated as having promise in overall quality characteristics. This material represents a new generation of experimental selections that are candidates for advancing and further testing to determine their desirability as possible commercial varieties. See Summary List of Early Generation Nurseries Evaluated on Page 16. No data is included.

In co-operation with a grant from the PNW Grains Council the milling and baking evaluation were made on commercial composites representing the wheat crop (1984) of WA, OR, and ID. The data was used in their marketing brochures. See Nursery Code number 013.

In a continued effort to resolve the sprout damage issue with the Japanese, thirty 20 pound samples from the 83 crop harvest were collected from farm storage and warehouse stocks in Washington and Oregon and sent to the Japanese Flour Milling Association Laboratory at their request. These samples were to be analyzed by their traditional method (Amylograph) and by Falling Number and the new dye test method. We also analyzed them for alphamylase and by sponge cake baking. Correlation between the methods used for enzyme assay were good, but poor correlations with enzyme activity and sponge cake performance were found. The data is in Nursery Code 057.

In co-operation with the Montana Wheat Quality Council we assisted in the pilot milling and baking evaluation of 27 hard red winter and spring samples. The samples were advanced selections from the Montana wheat breeding program, which were candidates for commercial variety release following industry evaluation. See Nursery Code 031 for results. Similarly we collaborated with the Hard Red Winter Wheat Quality Council by baking evaluation of 13 hard red winter wheats. For these results see Nursery Code 025.

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NURS	0522 0522 0523 0523 0523 0523 0623 0623 0623 0623 0623 0623 0623 06	KEY

#### ABBREVIATION DESCRIPTION

We have implemented a computer program to store, calculate, and retrieve our milling and baking data. The following is a list of abbreviations used as column headings in the following tables of data.

NURSCO - Nursery Code Number (located upper left corner of table).

LABNUM - Laboratory Number (first two digits crop year).

VAR - Variety or selection name.

IDNO - CI or Selection Identification Number.

TWT - Test weight in lbs/bu.

FASH - Flour ash percent at 14% moisture basis.

FYELD - Percent of flour obtained.

MSCOR - Milling score.

FPROT - Flour protein percent at 14% moisture basis.

FABSC - Farinograph water absorption corrected to 14% moisture basis.

FPEAK - Farinograph mixing peak time in minutes.

FSTAB - Farinograph stability in minutes.

BABS - Bake water absorption at 14% moisture basis.

BABSC - Bake absorption corrected to mean protein of nursery.

MTIME - Optimum mixing time in minutes.

LVOL - Bread loaf volume observed in cc's.

LVOLC - Bread loaf volume (cc) corrected for protein to the mean protein of the nursery. (See table 1 or 2, page ix )

BCRGR - Bread crumb grain rating code. (See following CODE ratings & Meanings.)

CODE	MEANING	
1	Excellent	(S*)
2	Satisfactory	(S)
3		(Ø−S)
4	Questionable-Satisfactory	(Q-S)
5		(Q-\$)
6	Questionable	(Q)
7		(Q-N)
8	Questionable-Unsatisfactory	(Q-U)
9	Unsafisfactory	(U)

CODI - Cookie diameter in cm's.

CODIC - Cookie diameter (cm) corrected for protein to the mean protein of the nursery. (See table 1 or 2, page ix )

VISC - Brookfield viscosity (observed)

VISCC - Brookfield viscosity corrected for protein to the mean protein of the nursery.

CAVOL - Japanese Sponge Cake Volume in cc's.

SCSCOR - Sponge cake score (scale 1-100)

WTIN - Noodle weight increase (percent).

NYELD - Noodle yield.

NOSCORE- Noodle score (1-100)

MABS - Mixograph absorption at 14% moisture (%).

MABSC - Mixograph absorption corrected for protein (%).

MTYPE - Mixograph Type - From Mixograph Reference Chart. (See pages 7-8.)

RATE - Overall Rating when used see table 3.
RMKS - Remarks.

#### Western Wheat Quality Laboratory

#### INTERPRETATION OF DATA

As in the past reports, decisions were based on the results of the tests after adjustment to an average protein content of the nursery using correction factors derived from several years of data on particular varieties and/or classes of wheat. These correction factors and scale for ranking codes can be found in the following tables 1-3.

#### CORRECTION FACTORS - TABLE 1

VTN	VARIETY	(VC) LOAF VOLUME	(CC) COOKIE
		,	
.1	Anza	61	0
2	Burt	51	.078
3	Coulee	76	.070
4	Fortuna	64	0 .
5	Gaines	38	.136
6	Hyslop	0	.137
7	Inia 66	68	0
8	Itana	60	0
9	Kharkof	57	0
10	Luke	0	.085
11	Marfed	61	.098
12	McCall	52	0
13	McDermid	0	.106
14	Moro	0	.094
15	Nugaines	62	.118
16	Omar	0	.083
17	Paha	0	.037
18	Sprague	0	.062
19	Springfield	0	.042
20	Twin	0	.149
21	Yamhill	0	.124
22	Wanser	69	0
23	Wared	62	0

Variety name (VAR) not found or where the value is zero in Table 1, use correction factor for class of sample in Table 2.

VTN = Computer system variety number

# CORRECTION FACTORS - TABLE 2

CLASS	(VC) LOAF VOLUME	(CC)
CLASS	LUAF VOLUME	COURTE
SWW	60	.110
SWS	60	.110
CLUB	55	.071
HRW	62	.080
HRS	62	.080
. HVM	. 62	.080
HWS	62	.080

# RANKING AND RATING CODES - TABLE 3

CODE BREAD CRUMB GRAIN	MEANING	
1 2	Excellent Satisfactory	(S*) (S)
3 4 5	Questionable-Satisfactory	(Ø-S) (Q-S) (Q-\$)
6 7 8	Questionable  Questionable-Unsatisfactory Unsatisfactory	(Q) (Q-V) (Q-U)

# Thirty-Seventh-Annual Report of the Western Wheat Quality Laboratory

#### 1984 Crop

G.L. Rubenthaler, H.C. Jeffers, P.D. Anderson, A.D. Bettge, D.A. Engle, and P.A. Sperry 1/, 2/

#### INTRODUCTION

This is the Thirty-Seventh Annual Report of the Western Wheat Quality Laboratory of cooperative investigations with breeder, geneticists, and pathologists in the seven Western states to evaluate the milling and baking quality characteristics of experimental wheat selections grown and harvested as the 1984 crop. These investigations included several market classes and sub-classes of wheat which are commercially grown in the Pacific Northwest and the Western region and relates to their quality for commercial production and consumer acceptance. These studies deal with the physical-chemical flour properties associated with a wheat's suitability for commercial pastry and bread products.

The nurseries have been arranged in nurseries (Nursery Index in Table of Contents) and the varieties and selections are listed in the tables in order of their assigned Laboratory Number. Mixograms were run on all samples evaluated, but none were reproduced for inclusion in this report. Alternately, each mixogram was characterized by type as described in the Methods Section.

- 1/ Research Food Technologist, Research Food Technologist, Physical Science Technician, Physical Science Technician, and Clerk-Typist, respectively, U.S. Department of Agriculture, Agricultural Research Service, Western Region, assigned to the Western Wheat Quality Laboratory, Wheat Genetics, Quality, Physiology, and Disease Unit, Pullman, WA.
- 2/ Credit is due Garrison King, Washington State University Laboratory Technician II for the flour milling and physical-chemical determinations made on early generation material. This work was supported by grant funds from the Washington Wheat Commission.

# METHODS USED BY USDA, WESTERN WHEAT QUALITY LABORATORY

All wheat samples were fumigated when received with 800 cc of methyl bromide/50 gal. drum overnight and then aerated, cleaned, scoured, test weight (1, Method 84-10) determined, sub-sampled for approximate analysis, and placed in the storeroom until experimentally milled by the following methods:

Buhler Milling: All of the 1982 samples of Advanced and Regional Nurseries were milled on a Buhler, pneumatic, laboratory mill. The samples were tempered to a predetermined moisture content ranging from 14.0% to 16.0%, depending on the hardness and the known flour-bolting properties. The harder wheats require the most water. Thus, the grain was conditioned so that the most rapid and most complete separation of endosperm could be made. The temper water contained a wetting agent (.1% Aerosol OT) to hasten moisture pentration and the tempered wheat was allowed to rest for 16-24 hours before milling to permit uniform distribution of the moisture. An aditional 0.5% water was added 15-20 minutes prior to milling. The Buhler experimental mill schematic flow is shown in Figure 1.

All six flour streams were combined to make a straight-grade flour. The first and second break and first and second reduction streams were combined for a patent flour. All straight-grade flour was rebolted on a 120 stain-less steel wire screen and blended thoroughly.

Flour Yield: The percent of the total products recovered as straight-grade white flour.

Milling Time: The minutes required to mill a 2000-gram sample with the Buhler experimental mill and obtain a normal separation of bran, shorts, and flour. Time is determined by visual observations and adjustments by an experienced miller.

#### Milling Score: Calculated as follows:

```
100 - [(80 - flour yield) + 50 (Flour ash - .30) + .48 (Milling time - 15) + .5 (65 - % long patent) + .5 (16 - 1st tempering moisture)]
```

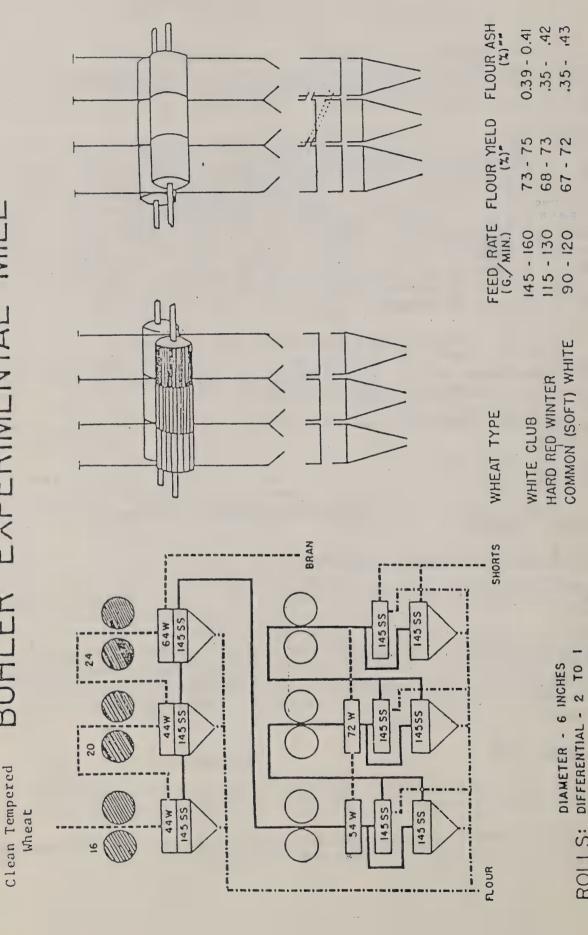
Modified Quadurmat Milling Method: The preliminary nurseries were experimentally milled on Modified Quadurmat system (500g). The procedure was discribed in the 27th Annual Report, Oct. 1976 (pages 1-14). Conversion of the data to give a predicted Buhler flour yield and milling score was done with the following linear equations:

# Flour Yield Milling Score

Soft wheat 
$$(y = 14.0671 + .83474X)$$
 Soft wheat  $(y = -21.60185+1.27367X)$  Hard wheat  $(y = 13.4166 + .83298X)$  Hard wheat  $(y = -3.43818+1.0448X)$ 

The Modified Procedure is schematically shown in Figure 2. Modifications include those described by Jeffers and Rubenthaler (11).

BUHLER EXPERIMENTAL MIL



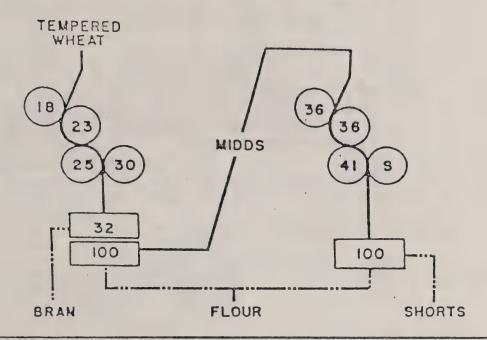
\* BASIS TOTAL PRODUCTS, RECOVERED FROM MILL.

SURFACE - 300 SQUARE INCHES

BOLTING SURFACE - 288 SQUARE INCHES

Schematic flow of the Buhler experimental mill showing a range of the average feed rates, flour yields, and flour ash of the various classes of wheat. Roll settings are varied for optimum clean-up and reduction of the stock, and feed rates according to the bolting and reduction properties.

# MODIFIED QUADRUMAT SR. MILLING PROCEDURE



BREAK UNIT BRABENDER QUADRUMAT JR. WITH QUADRUMAT SR BREAK ROLLS

REDUCTION UNIT BRABENDER QUADRUMAT SR. REDUCTION HEAD

ROLLS:

DIAMETERS: 2.8 INCHES

FAST ROLLS: 1200 RPM SLOW ROLLS: 560 RPM

DIFFERENTIAL: 2.14 TO 1

TEMPER:

TO 15% FOR 24 HOURS WITH

WETTING AGENT

SIFTERS: B INCH TYLER TESTING SIEVES ON ZELENY SEDIMENTATION SIEVE SHAKERS

SIFTING SCHEDULE.

BREAK STOCK:

BRAN: REMOVED AFTER I MIN. MIDDLINGS! REMOVED AFTER AN ADDITIONAL 2 MIN. (3 MIN. TOTAL)

REDUCTION STOCK: 3 MIN.

SAMPLE SIZE: 100-250 GRAMS TEMPERED WHEAT (HELD CONSTANT WITHIN EACH COMPARISON GROUP)

#### OUTPUT: 5-7 SAMPLES PER HOUR

Figure 2. Semi micro experimental mill flow with the roll corrugations per inch. The break rolls have corrugation spirals of 1.25, 1.75, 1.88, and 1.25 inch/ft. in progressive order, and the middling reduction roll spirals are 1.25, 1.25, 1.25, and frosted smooth. Roll spacings for first, second and third break are 0.035, 0.0035, and 0.002 inch respectively. The middling rolls are set at 0.0015, 0.0020 and 0.0015 inch respectively.

Semi Micro Flour Quality:\* Wheats milled on the semi-micro mill which gave satisfactory flour yields were evaluated by the following tests and all others with unsafisfactory milling properties were discarded: NIR protein, mixograph (3, 9), and AWRC test (14,10) to distinguish whether they fit the sub-class of club or soft common and/or hard wheats.

Micro Milling of Single Plant Selections:\* The 5-10 gm samples of grain were accurately weighed, placed in vials, and water added to bring them to 14% moisture. The tempered grain was milled on the micro mill which consists of two pairs of corrugated rolls and double sifters with 38- and 135-mesh stainless steel screens. The bran over the 38-mesh sifters was evaluated for milling properties by visual examination for the degree of bran clean-up. The throughs of the 135-mesh stainless steel screen, of those samples considered to be good milling types, were examined for flour quality by means of the Modified Micro Sedimentation Method (12). Protein and lysine are determined on these materials by NIR analysis (16). A schematic flow diagram of the micro mill is shown in Figure 3 (2, 13).

Moisture Content of Wheat & Flour: These values have not been given in these reports, but the methods are as follows: The reference test is two grams of ground wheat in an aluminum moisture dish are heated in a forced draft oven for 40 minutes at 140° C., allowed to cool in a desiccator and weighed. Flour Moisture is determined in the same manner except that it is heated only 20 minutes. The NIR (Technicon 400) is routinely used as calibrated to the above method.

Ash of Wheat and of Flour: The ash from a 4-gram sample of wheat meal or flour heated for 15 hours at 550° C. in a muffle furnace. (1, Method 08-01).

Protein of Wheat and Flour: The protein content of the samples was determined by the NIR method, and checked (about 10% of the material) by the Kjeldahl method (1, Method 46-12).

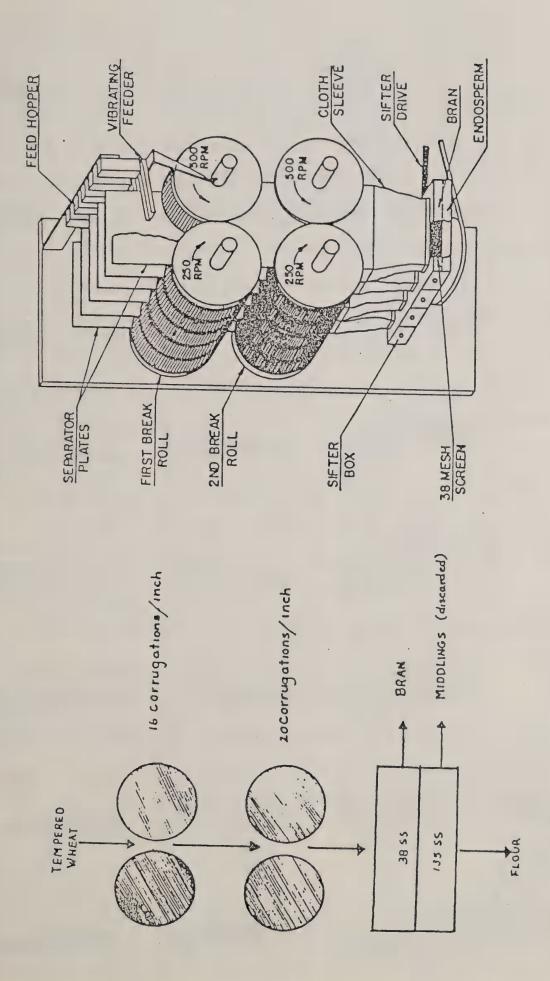
Alkaline Water Retention Capacity (AWRC): The percent increase in weight of 7.5 g flour due to absorption of water from 35 ml of .1 normal NaHCO<sub>3</sub> solution (17).

<u>Viscosity</u>: Dial reading x 7.5 of a RVT Brookfield Synchro-Lectric Viscometer fitted with a No. 2 spindle at 50 R.P.M. using a suspension of 20 grams of flour in 100 ml of water and 7 ml of 1 N lactic acid (15).

Mixogram: Used to characterized new selections as to market class and estimate baking properties. The recently developed 10 gm instruments were used and the testing procedure and interpretation of K.F. Finney(9) was followed. To reduce the time and expense involved in reproducing the mixograms a reference chart was developed to characterize each curve as to type ranging from very weak to expectionally long and strong types. The chart and instructions for its use are found on pages 7 and 8.

\*Supported by special grant of funds from the Washington Department of Agriculture and the Washington Wheat Commission to permit extensive early generation ( $\mathbb{F}_3$ - $\mathbb{F}_4$ ) testing.

# MICRO-MILL FLOW



ROLL SPACING 18 .012 INCH 28 .0025 "

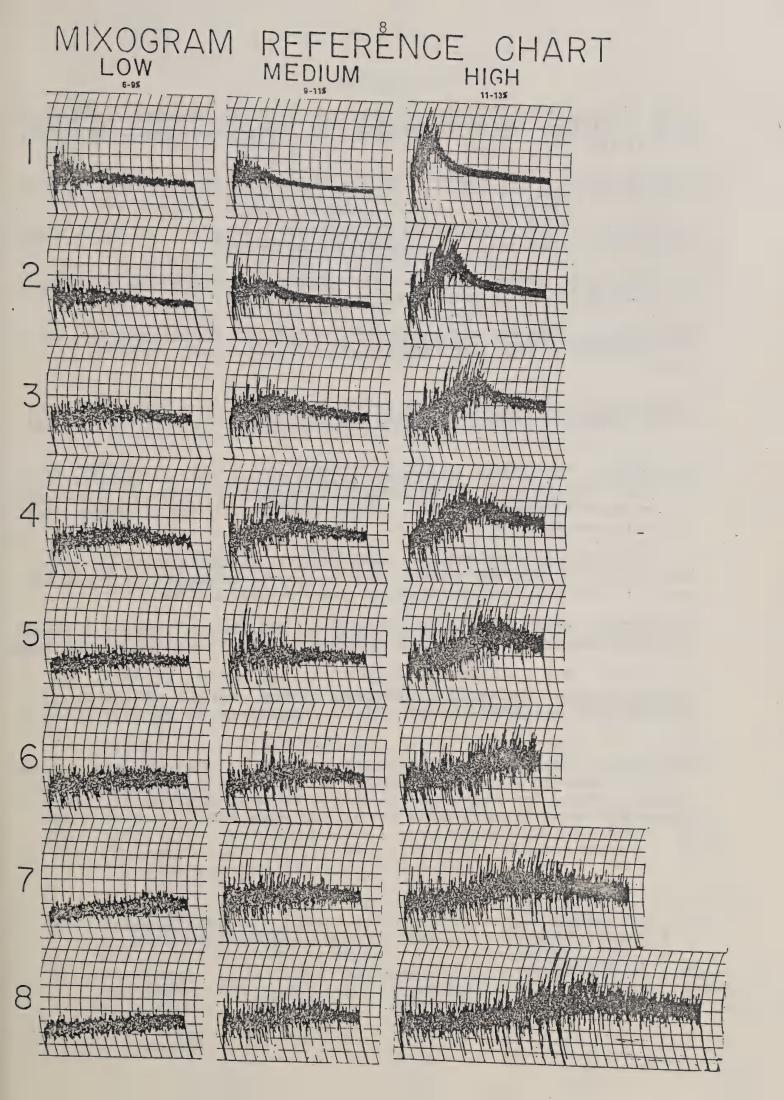
Schematic and flow of the micro experimental mill. Four samples are milled and sifted simultancously and feed rate is held constant by a vibratory feeder. Figure 3.

#### USE OF MIXOGRAM REFERENCE CHART

In addition to determining mixing time for optimum dough development by observation during baking test, mixing time and mixing tolerance, two important baking properties of wheat flour, can be determined independently from a mixogram. A mixogram is determined with 10g of flour and appropriate amount of water to give optimum absorption. It is really nothing more than a recording mixer reflecting the resistance the dough has to be mixed over a period of time. Most mixograms are run either 7 or 8 minutes which is sufficient time for most flours to give a full picture of their mixing time and to show what happens when mixing continues beyond this point (mixing peak) as reflected in the tail of the curve and commonly referred to as tolerance.

Final evaluation must be made with consideration given to the protein content of the flour, because of the effect protein content has on the mixing characteristics within the same variety. As protein increases, mixing time will decrease with an apparent increase of tolerance. To illustrate this, compare #1 high(H) with #2 medium (M) and #3 low (L) which are typical mixograms of the club wheat Paha at 12, 9, and 6% protein respectively. Similarly, 2H, 3M, and 4L are typical for Nugaines at these protein levels. Little change can be observed on any wheat above 13.0 or below 7.5% protein.

This chart will be used to identify the curve characteristics which most closely fit the sample and will be reported as numbers 1L, 1M, 1H, etc. through 8H.



Cookie Baking: 40 g of flour, micro method, using 25% absorption, 60% sugar, 30% emulsified shortening, 3% dry skim milk, 1% NH<sub>4</sub>HCO<sub>3</sub>, 1% NaCL, 1% NaHCO<sub>3</sub>, was employed (8).

Cookie Diameter is the average diameter, in centimeters, of cookies baked on two separate days.

Flour Weight Procedure was employed (1, Method 54-21A).

Farinograph Absorption is the amount of water required to center the highest portion of the Farinograph curve on the 500 unit line.

Peak or Farinograph Mixing Time is the time interval, in minutes, from the first addition of water until the tip of the curve reaches its maximum height.

Stability of Period of Resistance is the number of minutes the top of curve remains above the 500 unit line when the highest portion (peak) is centered on the 500 unit line.

Bread Baking: An optimum absorption, optimum mixing, optimum bromate, 100 g flour and straight dough method using 7.2% yeast, 1 1/2% salt, 6% sugar, 1/4% malt extract, 4% dry milk solids, 65 ppm ascorbic acid, and 3% hydrogenated shortening was employed (5,6,7,10).

Baking Absorption: The amount of water required to make a dough of proper consistency for bread baking when mixed to optimum conditions as judged by an experienced baker using the baking method described above (4).

Mixing Time: Time in minutes required to mix the flour and the other bread dough constituents to the optimum condition as judged by an experienced baker (5).

Optimum Bromate: The amount of potassuim bromate required to produce the optimum break, shred, crust, and grain characteristics of the loaf of bread (5).

Flour Color: The slurry method using 20 g of flour, 25 ml of water, stirred for 2 minutes with a glass stirring rod fitted with a llmm policeman, and allowed to stand for 5 minutes. Reading is taken on an Agtron  $(F_2)$  calibrated with standard color discs #63 = 0 and #85 = 100.

#### REFERENCES

- 1. American Association of Cereal Chemists, Cereal Laboratory Methods (8th Ed.). The Association: St. Paul, MN (1983).
- 2. Everson, E.H. and Seeborg, E.F. The heritability of milling quality as measured by the separation of the bran and endosperm. Agron. Journal 50:511-513 (1958).
- 3. Finney, K.F. Evaluation of Wheat Quality. Proceedings of the A.A.A.S. Section O Symposium on Food Quality as Affected by Production Practices and Processing. Dec. 27, 1962. Also, Finney, et al, Quality Characteristics of Hard Winter Wheat Varieties Grown in the Southern, Central, and Northern Great Plains of the United States, 1963 Crop. Hard Winter Wheat Quality Laboratory, Manhattan, KS. CR-77-64, Dec. (1964).
- 4. Finney, K.F. Methods of estimating and the effect of variety and protein level on the baking absorption of flour. Cereal Chem. 22:149-158 (1945).
- 5. Finney, K.F. and Barmore, M.A. Optimum vs. fixed mixing time at various potassium bromate levels in experimental bread baking. Cereal Chem. 22:244-254 (1945).
- 6. Finney, K.F. and Barmore, M.A. Varietal responses to certain baking ingredietns essential in evaluating the protein quality of hard winter wheats. Cereal Chem. 22:225-243 (1945).
- 7. Finney, K.F. and Barmore, M.A. Yeast variability in wheat variety test baking. Cereal Chem. 20:194-200 (1943).
- 8. Finney, K.F., Morris, V.H. and Yamazaki, W.T. Micro versus macro cookie baking procedures for evaluating the cookie quality of wheat varieties. Cereal Chem. 27:42-49 (1950).
- 9. Finney, K.F. and Shogren, M.D. A Ten-Gram mixograph for determining and predicting functional properties of wheat flours. Bakers Digest April (1972).
- 10. Finney, P.L., Magoffin, C.D. Hoseney, R.C. and Finney, K.F. Short-time baking systems. I. Interdependence of yeast concentration, fermentation time and oxidation requirement. Cereal Chem. 53:126-134 (1976).
- 11. Jeffers, H.C. and Rubenthaler, G.L. Effect of roll temperature on flour yield with the Brabender Quadrumat Experimental mills. Cereal Chem. 54(5):1018-1025 (1979).
- 12. Kitterman, J.S. and Barmore, M.A. A modified micro sedimentation test for screening early-generation wheat selections. Cereal Chem. 46:273-280 (1969).

#### REFERENCES -- Continued

- 13. Kitterman, J.S., Seeborg, E.F., and Barmore, M.A. A note on the modification of the five-gram milling quality test and the five-gram micro-mill. Cereal Chem. 37:762-764 (1960).
- 14. Kitterman, J.S. and Rubenthaler, G.L. Assessing the quality of early generation wheat selections with the micro AWRC test. Cereal Science Today 16:313-328 (1971).
- 15. Kitterman, J.S. and Rubenthaler, G.L. Application of the Brookfield Viscometer for measuring the apparent viscosity of acidulated flour-water suspensions. Cereal Science Today 16:275-276 (1971).
- 16. Rubenthaler, G.L. and Bruinsma, B.L. Lysine Estimation in Cereals by Near Infrared Reflectance. Crop Science 18:1039-1042 (1978).
- 17. Yamazaki, W.T. An alkaline water retention capacity test for evaluation of cookie baking potentialities of soft winter wheat flours. Cereal Chem. 30:242-246 (1953).

# PUBLICATIONS (Jan. 1 - Dec. 31/85)

- 1. Faridi, H.A., and Rubenthaler, G.L. Flat Breads: A Review. Proceedings 5th Convention of Food Scientists and Technologists, New Delhi, India, April 1985.
- 2. Abboud, M.M., Rubenthaler, G.L., and Hoseney, R.C. Effects of fat and Sugar in Sugar-Snap Cookies and Evaluation of Tests to Measure Cookie Flour Quality. Cereal Chemistry 62(2):124-129. 1985
- 3. Abboud, M.M., Hoseney, R.C., and Rubenthaler, G.L. Factors Affecting Cookie Flour Quality. Cereal Chemistry 62(2):130-133. 1985.
- 4. Rubenthaler, G.L. and Pomeranz, Y. Biochemical Nature of Wheat Hardness by NIRA Transflectance. Labcon West - 85 Conference, San Mateo, CA (Abstract #23) April 23-25, 1985.
- 5. Finney, P.L., Henry, S., and Jeffers, H.C. Effect of Wheat Variety, Flour Grinding, and Egg Yolk on Whole Wheat Bread Quality. 62(3):170-173. 1985.

## INVITED TECHNICAL PRESENTATIONS

# Rubenthaler, G.L., 1985

Presented a talk "Wheat Classes and Their Uses" to Oregon Wheat Commissioners and Research Committee, Portland, OR, January 18, 1985.

Presented a seminar and tour to U.S. Wheat Associates, Indian Trade Team, Feb. 11, 1985.

Presented talks "PNW Soft White Wheat Characteristics", to Moroccan Flour Miller Association members and to Moroccan Ministry of Supply (O.N.I.C.L.), Casablanca and Rabat, Morocco, March 5-8th, 1985.

Presented a lecture "Principles and Uses of NIR" to WSU Food Science Dept. Food Analysis class, April 11, 1985.

Presented a paper "Wheat Hardness Studies with NIR" at the 32nd Annual Soft Wheat Quality Laboratory Research Review Conference, OARDC, Wooster, OH, April 18, 1985.

Presented a paper "Biochemical Nature of Wheat Hardness by NIRA Transflectance" at Labcon West Symposium, San Mateo, CA, April 25, 1985.

Presented a luncheon talk, "Quality Problems of Western White Wheat in the Market Place" to PNW Exporters and Grain Trade Association, Portland, OR, May 3, 1985.

Presented a talk "Your Wheat Quality Laboratory" at Columbia Basin Agricultural Research Center Field Days, Pendleton, OR, June 19, 1985.

Presented a talk "Marketing and Differentiating Wheat Market Classes" at Tri-State Wheat Workers Meeting, Pullman, WA, July 15, 1985.

Presented a seminar and tour of the Laboratory "Western Wheat Quality Laboratory" to Peoples Republic of China Production Trade Team, July 25, 1985.

Presented a short course "Quality Evaluation of Soft Wheat" at the Northern Crops Institute, NDSU, Fargo, ND, August 20, 1985.

Presented a short course "Quality Evaluation of Soft White Wheat" at International Grains Program, KSU, Manhattan, KS, August 23, 1985.

Presented a report "Northwest Soft Wheat - 1985 Crop" to Pacific Northwest Section of AACC Annual Convention and Technical Conference, Spokane, WA, October 18, 1985.

Presented talk "NIR/Wheat Hardness Research" to ARS Workshop on Wheat Hardness and Classification, Beltsville, MD, November 6, 1985.

Conducted a panel "Where Do We Go From Here To Revitalize Pacific Northwest Agricultural Exports". IMPACT Conference, Seattle, WA, November 19, 1985.

Western Wheat Quality Laboratory 1984 Crop

#### VISITORS

The Western Wheat Quality Laboratory Staff was pleased to have had the opportunity to meet, discuss, and give tours of our facilities with many visitors this past year. Several of these people were wheat breeders, grain buyers, flour millers, students and various government officials with an interest in wheat quality. The following is a list, not all inclusive, to those who visited our facilities:

Cereals Quality Class	16
W.S.U. Food Science & Human Nutrition, Food Analysis	15
U.S. Wheat Workers	45
Foreign:	
Egypt	2
India	5
Japan	6
Peoples Republic of China	5
Algeria	1
Malaysia (Singapore)	1
Uganda	1

# EARLY GENERATION NURSERIES 1984 Crop

NURSERY	LOCATION	BR	EEDER	CLASS	NUMBER TESTED	NUMBER PROMISING
Walla Walla	Walla Walla	C.J.	Peterson	SWW	115	67
Experiment #14	Pullman	C.F.	Konzak	HRS	24	24
Experiment #15	Pullman	C.F.	Konzak	HRS	26	2
Experiment #16	Pullman	C.F.	Konzak	HRS	74	28
Experiment #17	Pullman	C.F.	Konzak	HRS	76	24
Experiment #18	Pullman	C.F.	Konzak	SW & HR	46	22
Experiment #19 & #20	Pullman	C.F.	Konzak	HRS	25	13
Experiment #10	Pullman	C.F.	Konzak	HRS	47	40
Pullman Early	Pullman	R.E.	Allan	SWW	80	0
Pullman Early	Pullman	R.E.	Allan	SWW	80	0
Pullman Late	Pullman	R.E.	Allan	SWW	80	0
Pullman Late	Pullman	R.E.	Allan	SWW	80	0
Pullman Late (Blend)	Pullman	R.E.	Allan	SWW	69	17
Pullman Late (Blend)	Pullman	R.E.	Allan	SWW	38	12
Club Yield Test	Pullman			Club	75	22
Commons - Pullman Late	Pullman	R.E.	Allan	SWW	24	8
Pullman Management Trial	Pullman	R.E.	Allan	SWW	360 .	0
Pullman Late	Pullman	R.E.	Allan	SWW	36	0
Pullman Early	Pullman	R.E.	Allan	SWW	30	0
Walla Walla Rep. I & Rep. II	Walla Walla	R.E.	Allan	SWW	30	0
NC Hybrids - Pullman Early	Pullman	R.E.	Allan	HRS	30	0
NC Hybrids - Pullman Late	Pullman	R.E.	Allan	HRS	30	0
NC Hybrids - Walla Walla	Walla Walla	R.E.	Allan	HRS	30	0

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7/1-7/7 WEST SACRAMENTO 10.9 PRO
7/1-7/7 WEST SACRAMENTO 11.0-12.4 F
7/7-7/14 WEST SACRAMENTO 10.9 PRO
7/7-7/14 WEST SACRAMENTO 11.0-12.4 PRO KTON 12.5 PRO KTON 10.9 PRO KTON 11.0-12.4 PRO KTON 12.5 PRO SACRAMENTO 10.9 PRO ACORAN4 10.9 PRO ACORAN5 11.0-12.4 PRO ACORAN6 12.5 PRO 3 STOCKTON 10.9 PRO 3 STOCKTON 11.0-12.4 PRO PRO PRO 11.9 PRO 14.3 PRO 10.9 PRO 11.0-12.4 6/25-6/29 STOCKTON 11.0-12.4 6/25-6/29 STOCKTON 12.5 PRO 6/30 CORCORAN3 12.5 PRO 6/30 CORCORAN2 11.0-12.4 PRO 6/30 CORCORAN1 10.9 PRO SACRAMENTO 1 SACRAMENTO 1 SACRAMENTO 1 SACRAMENTO 1 VARIETY STOCKTON STOCKTON STOCKTON STOCKTON WEST SACR. IMPERIAL IMPERIAL IMPERIAL STOCKTON STOCKTON 6/30 CORCORAN4 6/30 CORCORAN5 6/30 CORCORAN6 7/9-7/13 STOCKTO WEST WEST WEST WEST 6/24-6/30 16/24-6/30 16/24-6/30 16/25-6/63 6/10-6/16 5/20-5/26 6/10-6/16 6/12-6/16 6/12-6/16 6/12-6/16 6/18-6/22 6/18-6/22 6/18-6/22 6/11-6/15 6/11-6/15 6/11-6/15 6/17-6/23 6/17-6/23 840031 840032 840033 840034 840034 840011 840012 840013 840014 840015 840017 840017 840018 840019 840026 840027 840028 840029 840001 840002 840003 840004 840005 840006 840007 840008 840009 840010 840021 840022 840023 840024 840024 LAGNUM

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COMMENTS:

CA

FPRO	10.5 7.8 9.5 10.7
FASH	0.37 0.39 0.40 0.41
FMIST	13.1
MSCOR	90.8 79.7 78.3
FYELD	74.6 68.5 68.0 67.4
A.A.	.031 .030 .028 .035
Z	394 397 419 403
WPROT	8.9 8.9 7.11
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1000 KW	39.0 38.3 38.1
TWT 10	65.7 64.0 64.1 63.4
CLASS	HRW HRW HRW
ONGI	CA186681 CA186683 CA186682
VARIETY	340036.7/7-7/14 WEST SACRAMENTO 12.5 PRO 340037 7/2-7/6 STOCKTON 10.9 PRO 340038 7/2-7/6 STOCKTON 11.0-12.4 PRO 340039 7/2-7/6 STOCKTON 12.5 PRO
LABNUM	840036-7/ 840037-7/ 840038-7/ 840039-7/

the importance of protein in bread making. Flours less than 10% protein are very questionable and those less than 9% are unsatisfactory been 70-72% flour yield and 84-86 milling score. Wheats were conditioned to 16% moisture for milling 18-24 hrs. later. The brans were uncharacteristically fragile for either cultivar Anza or Yecora Rojo. Wheat to flour protein conversion loss was typical at 1.0-1.5%. Flour yield and milling score values were lower than normal, with the poorest from the Corcoran station. Expected values would have Test weight was determined on clean scoured wheat and ranged from 60.7 to 68.4 with most Dough Mixing properties determined by farinograph, mixograph, and during dough preparation in the baking test relate fair with loaf generally produce the better loaf volumes and crumb grains. The plot of flour protein vs loaf volume on Page 4 illustrates clearly volume (LVOL) and bread crumb grain (BCRGR). Mixing Tolerance Index (MTI) generally relates well with loaf volume and bread crumb grain score, with the exceptions of a couple samples (Corcoran 10.9 and 11.0-12.4% protein). Flours with MTI values of 40 or less averaged about 9.0 percent. All samples had very low alpha amylase activity (DU/g.) giving good sound Falling Number values. in 64.0 lb/bu range. Thousand kernel weight ranged from 34.0 to 49.2 with no apparent correlation with test weight. Test weight of all samples were excellent. in all respects.

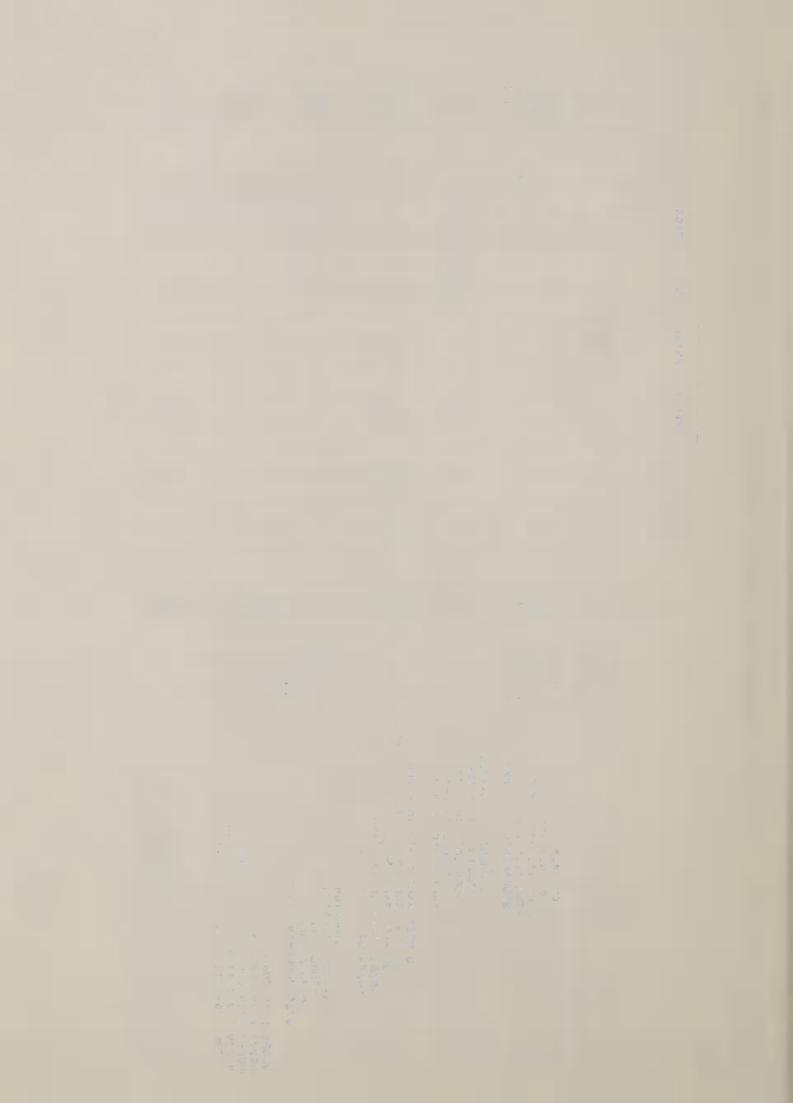
In our opinion, none of these flours are marketable for the Japanese style Udon noodle. While their weight increase (WTIN) during cooking was good (i.e. 342 equals a 342% increase in noodle weight) their eating properties were very undesirable. All were short in bite, too rigid and firm in texture, and most had a sticky property that is undesirable. They may be more suited to other types of noodle (Ramens, egg, etc.). The low protein flours (less than 10%) were tested for oriental noodle making properties. not have a method for evaluating flours for those products.

In conclusion the wheats that gave flour protein below 10%, loaf volumes less than 850 cc, and crumb grain scores greater than 4 are See "Remarks" column for major edficiencies, Page 3. not satisfactory for bread making.

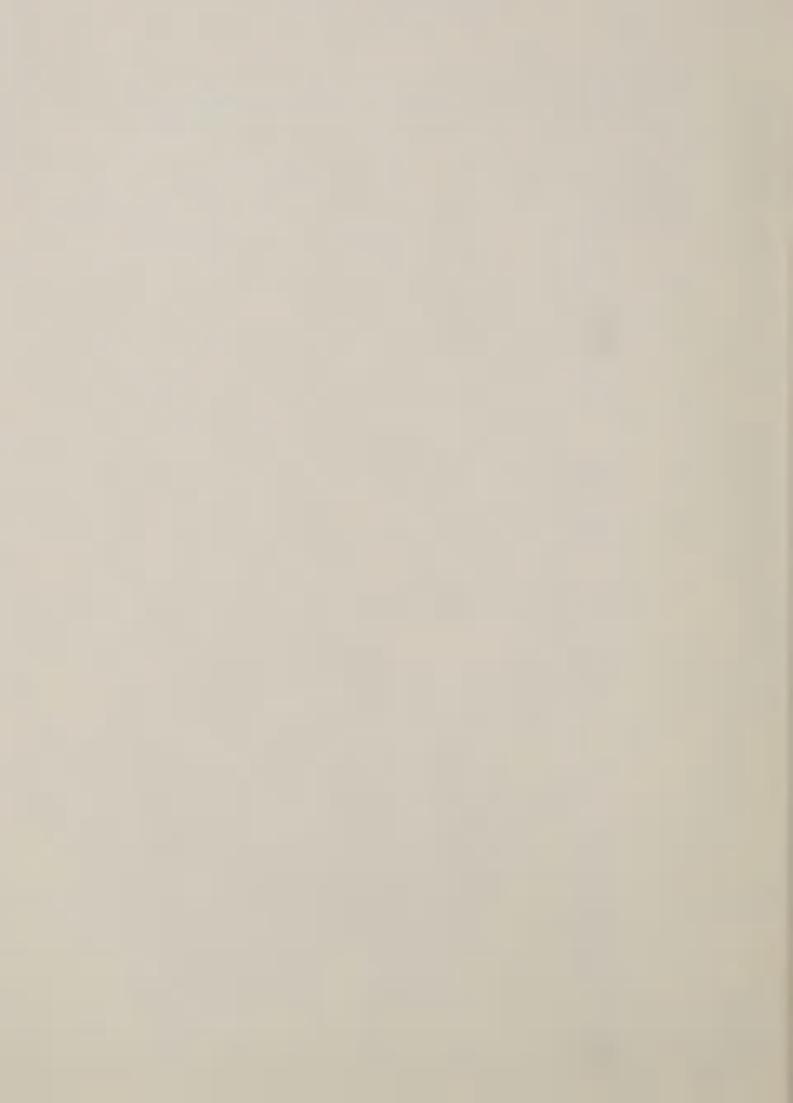
VP= Very Poor; P = Poor; Q = Questionable

2

	BABS	65.8 67.1 68.0 63.4 66.0	68.1 64.1 64.6 66.8 63.0	66.2 66.4 63.2 62.9 68.3	62.3 64.6 71.2 65.7 61.9	64.9 67.7 69.5 67.6 66.2	68.1 68.1 59.5 62.5	64.2 59.3 61.7 57.7 59.4
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	MABS	60.6 61.4 62.8 59.4 60.5	61.9 58.6 59.6 62.6 58.3	61.0 62.2 57.7 58.7 62.6	57.1 59.6 64.0 60.5	60.7 62.5 63.5 62.1 58.5	59.5 61.1 62.1 58.3 60.3	61.0 57.1 58.5 56.5 58.2
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	FSTAB	19.0 9.0 6.9 4.5	12.5 2.9 3.7 10.2	933.75	2.8 3.0 14.6 2.3	3.5 15.7 25.7 4.3	9.0 10.5 10.3 1.8	13.4 22.8 22.9 22.9
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PAGE 2		BABS	57.2 59.0 61.8 63.8
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		MABS	57.0 57.5 59.6 59.6
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RMKS

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CALIFORNIA WHEAT COMMISSION CROP SURVEY

CA

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

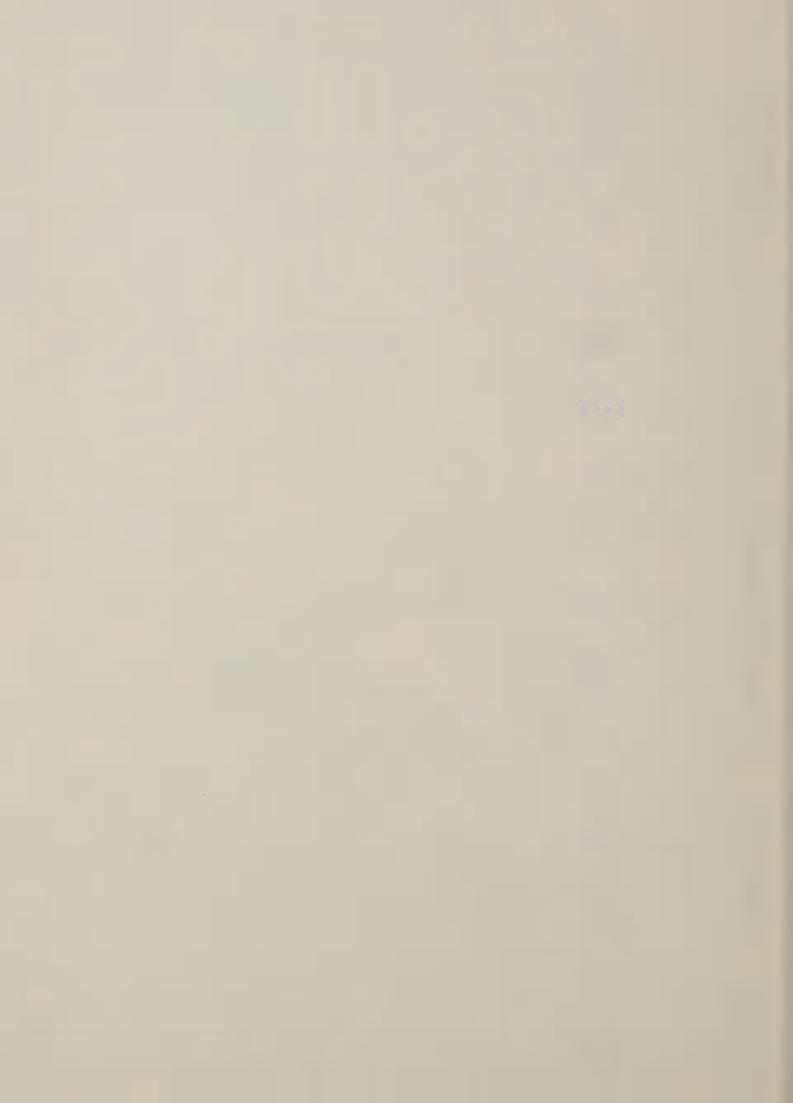
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NOSCO 99 69 70 69 89 69 71 29 67 29 69 361 371 360 NILM 366 361 351 372 369 342 348 374 BCRGR ららはのめ 20000 2000 N 00000 @ N m m @  $\infty \infty \cap \infty \infty$ LVOLC 862 836 777 674 711 785 695 786 800 810 815 873 765 815 782 709 796 760 759 768 785 840 792 846 812 822 812 847 805 792 850 848 858 550 680 LVOL 847 565 755 850 680 778 935 610 765 850 610 765 903 815 650 760 883 860 840 707 723 800 928 700 780 MTIME 5.0 3.8 4.3 3.1 4.7 3.1 4.1 2.4 2000 m 90000 55.3 00000 673.E3 NE 30 N BABSC 66.0 66.9 66.7 65.4 66.5 67.1 66.2 65.1 66.0 66.8 65.4 65.7 63.7 67.2 63.9 65.1 68.9 64.8 63.8 65.3 67.0 67.7 67.9 69.8 68.3 67.3 61.2 62.7 CLASS HRW HRW HRW HRW HRW HRW HRW HRY HRY HRY HRY HRY HRW CA192934 CA202158 CA185879 CA185878 CA185877 CA186156 CA186157 CA186158 CA186158 CA203559 CA186526 CA207489 CA207488 CA207487 CA186524 CA207490 CA186525 CA207491 CA207494 CA186749 DNO PRO PRO PRO 11.0-12.4 12.5 PRO 10.9 PRO 11.0-12.4 12.5 PRO WEST SACRAMENTO 10.9 PRO WEST SACRAMENTO 11.0-12.4 WEST SACRAMENTO 12.5 PRO IMPERIAL 12.5 PRO STOCKTON 10.9 PRO 9 PRO 12.5 PRO 10.9 PRO 11.0-12.4 PRO 12.5 PRO PRO PRO 6/30 CORCORAN4 10.9 PRO 6/30 CORCORAN5 11.0-12.4 PRO 6/30 CORCORAN6 12.5 PRO 7/9-7/13 STOCKTON 10.9 PRO 7/9-7/13 STOCKTON 11.0-12.4 PRO STOCKTON 12.5 PRO STOCKTON 10.9 PRO STOCKTON 11.0-12.4 P STOCKTON 12.5 PRO WEST SACRAMENTO 10.9 11.9 PRO 14.3 PRO 10.9 PRO 11.0-12.4 F 6/25-6/29 STOCKTON 11.0-12.4 6/25-6/29 STOCKTON 12.5 PRO 6/30 CORCORAN3 12.5 PRO 6/30 CORCORAN2 11.0-12.4 PRO 6/30 CORCORAN1 10.9 PRO SACRAMENTO 1 SACRAMENTO 1 SACRAMENTO 1 SACRAMENTO 1 SACRAMENTO 1 VARIETY IMPERIAL IMPERIAL STOCKTON STOCKTON WEST WEST WEST WEST 6/10-6/16 5/20-5/26 6/10-6/16 6/12-6/16 6/12-6/16 6/11-6/15 6/17-6/23 6/17-6/23 6/17-6/23 6/24-6/30 6/24-6/30 6/24-6/30 6/17-6/63 6/25-6/29 6/12-6/16 6/18-6/22 6/18-6/22 6/18-6/22 6/11-6/15 840007 840007 840008 840005 840011 840012 840013 840014 840016 840017 840018 840019 840020 840021 840022 840023 840024 840026 840027 840028 840029 840030 840001 840002 840003 840004 840005 LABNUM

CALIFORNIA WHEAT COMMISSION CROP SURVEY

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

		GR
	RMKS	VP-BCRGR VP-LVOL&BCR Q-LVOL
	NOSCO	V 07 -9 79 .
	WIIW.	376
	BCRGR	\$\$ \$\delta \tau \tau \tau \tau \tau \tau \tau \t
	LVOLC	814 801 811 802
	TAOL	845 665 780 845
	MTIME	33.1
	BABSC	56.7 61.2 62.3 63.1
CA	CLASS	HRW HRW HRW HRW
	IDNO	CA186681 CA186683 CA186682
	VARIETY	840036 7/7-7/14 WEST SACRAMENTO 12.5 PRO 840037 7/2-7/6 STOCKTON 10.9 PRO 840038 7/2-7/6 STOCKTON 11.0-12.4 PRO 840039 7/2-7/6 STOCKTON 12.5 PRO
NUKSCO	LABNUM	840036 7/7-7/ 840037 7/2-7/ 840038 7/2-7/





K. BEATTY

EATS	<b>V</b>
I PRI WHEATS	SOLEGE
USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.	Δ.
USDA, SEA WESTERN W PULLMAN,	NURSCO

LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
840066 YOLO 840067 PHOENIX 840068 YECORA ROJO 840069 CROW SIB 840070 BEAGILITA-13		C1017961 C1017962	HRS HWW HRS HWS	65.3 64.3 64.7 63.9 55.6	72.7 71.2 69.7 69.4 64.3	0.39 0.40 0.39 0.46 0.42	87.8 86.0 84.8 80.8	m n o m o	59.5 56.9 58.3 58.3	1 3 3 3 3 3 3 3 4 1 1 1 1 1 1 1 1 1 1 1
840071 JUANILLO-168 840072 IMPALA SIB 840073 NACOZARI 76 840074 M2A-1A	/9	<u>6</u> /1508314	HRS SRS SRS HRS	58.2 57.6 64.6 59.2 64.1	5000	·		w.r.u.r.u	57.	11 11 11 4H
840076 840077 840078 840079		1508322 1508337 1708401 83012 1583226	HRS SRS HWS HWS	65.2 64.2 58.3 64.9	67.0 67.2 68.2 70.3	0.39 0.40 0.39 0.39	82.0 81.7 83.4 85.2 80.5	897.798	61.3 58.3 54.0 61.4 60.7	33M 11 33M 33M
840081 840082 840083 840084 840085	$\sqrt{\dot{\epsilon}}$	1S83307 1S83499 1S83501 84016 84017	HRS HRS HRS HRS	7.19 7.19 7.19 7.19 7.19	68.9 69.1 69.4 68.3 69.2	0.38 0.38 0.36 0.36	84.5 84.7 86.0 84.7 85.9	10.0 8.7 10.0 9.3	58.3 58.9 56.0 61.0 57.6	Z Z Z Z 5 0 0 3 3
840086		84026	HRS	8.49	68.3	0.40	82.8	8.9	60.1	Wħ
1/ Observed Values Corrected to 14% Moisture 3/ Absorption at 14% Moisture Corrected to 4/ Observed Values Corrected to 9% Protein.	1/ Observed Values Corrected to 14% Moisture Basis. 2/ Absorption at 14% Moisture Corrected to 9% Protein. 4/ Observed Values Corrected to 9% Protein.			5/ Parti 6/ Promi	Particularly Propressing Overa	Promising Overall rall Quality Chara	-ly Promising Overall Quality Ch Overall Quality Characteristics	ty Charact stics.	Characteristics.	

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.		IPRI WHEATS	ATS					CONTD. PAGE 1
NURSCO 2		SAN CARLOS,	S, CA					K. BEATTY
LABNUM	ONGI	CLASS	BABS	BABSC 3/	MTIME	TOAT	LVOLC 4/	BCRGR RMKS
840066 YOLO 840067 PHOENIX 840068 YECORA ROJO 840069 CROW SIB 840070 BEAGILITA-13	C1017961 C1017962	HRS HRS HRS HRS	60.4 58.0 63.9 61.2 57.2	61.1 58.5 63.3 61.9 59.3	1.6 3.9 2.6 8.6	780 710 860 655 500	823 741 823 698 630	8 P-BCRGR 8 P-LVOL&BCRGR 2 9 P-LVOL&BCRGR 9 VP-FYELD, LVOL&BCRGR
840071 JUANILLO-168 840072 IMPALA SIB 840073 NACOZARI 76 840074 M2A-1A	1508314	HRS SRS HWS SRS HRS	55.9 52.9 61.2 53.4 65.1	58.6 55.2 61.0 55.9 63.6	3.7.2	455 510 750 485 890	622 648 738 635 797	9 P-MILLING, LVOL&BCRGR 9 P-MILLING, LVOL&BCRGR 8 P-BAKING 9 VP-MILLING&BAKING 3 Good Overall
840076 840078 840079 840080	1508322 1508337 1708401 83012 1583226	HRS HRS SRS HWS	63.0 61.4 52.7 64.3 61.9	63.9 60.9 54.6 64.0 62.3	23.03.0	665 615 630 700 715	721 584 744 681	8 Heavy BCRGR 8 P-LVOL&BCRGR 8 P-LVOL&BCRGR 8 P-LVOL&BCRGR 6 Q-FYELD, P-BCRGR
840081 840082 840083 840084 840085	1583307 1583499 1583501 84016 84017	HRS HRS HRS HRS	61.9 61.5 59.6 64.9 61.9	60.9 61.8 58.6 64.6 60.5	22.00	710 665 690 725 750	648 684 628 706 663	8 P-LVOL&BCRGR 8 P-LVOL&BCRGR 6 P-LVOL&BCRGR 5 Q-LVOL&BCRGR 8 P-LVOL&BCRGR
840086	84026	HRS	62.6	62.7	2.5	699	671	8 P-LVOL&BCRGR
COMMENTS: CROW SIB Hard white - very poor bread baking properties BEAGILITA-13 Very poor milling and baking HRS. JUANILLO-168 Very poor milling and baking HRS.	poor bread baking prope ing and baking HRS. ing and baking HRS.	rties.	IS IS 84	IS83499 Gc IS83501 Gc 84016 Ques	Good milling, but Good milling, but Questionable baking	but but ing	poor baking pro poor baking pro properties.	properties. properties.

84026 -- Questionable milling but poor baking properties. Only two of the selections in this group of wheat have both acceptable milling and bread baking quality (ISO8314 and 84017). 84017 -- Good milling but poor baking properties. IMPALA SIB -- Soft textured red wheat with very poor bread baking. NACOZARI-76 -- Good milling and poor bread baking hard white. 83012 -- Hard white, good milling, poor baking properties. [S83226 -- Questionable milling, poor baking, hard white. IS83307 -- Good milling, but poor baking properties. IT08401 -- Soft red - very poor baking properties. M2A-IA -- Very poor milling and baking soft red.

NURSCO	e		DAVIS, (	CA					D.G. GILCHRIST	CHRIST
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
840087 T/ 840088 T/ 840089 YI 840090 T/ 840091 T/	TADORNA X INIA 66 TADORNA X INIA 66 YECORA ROJO TADORNA X INIA 66 TADORNA X INIA 66	6/406/3 406/4 6/406/5 406/6	HRS HRS HRS HRS	61.0 63.6 62.0 62.3	67.6 67.5 68.3 67.9	0.32 0.34 0.35 0.38	86.2 85.2 85.4 83.6 84.3	9.3 13.3 9.4 10.4	59.1 62.2 64.4 61.5	4 M M M M M M M M M M M M M M M M M M M
840092 T/ 840093 T/ 840094 AI 840095 (	TADORNA X INIA 66 TADORNA X INIA 66 ANZA (CI015284) (TADORNA X 166) X ANZA UC489 RESISTANT SEL.	406/8 406/16 6/406/17 406/19 406/22	HRS SRS HRS HRS	61.9 61.7 63.2 61.8 62.6	67.5 67.3 66.9 65.8	0.49 0.34 0.37 0.38	77.4 85.0 83.0 82.5 81.3	9.3	60.0 58.0 57.6 59.3 61.2	3 M M M M M M M M M M M M M M M M M M M
840097 840098 840099 840099 840100 (840100)	TADORNA X INIA 66 PARANA X (GS'S' X CR'S') X GTA'S' PARANA X (GS'S' X CR'S') X GTA'S' (TADORNA X 166) X ANZA (TADORNA X 166) X ANZA	6/406/25 406/28 406/29 407/27 407/30	SWS HWS HWS HRS	61.7 60.0 60.6 61.8 62.7	67.5 59.6 60.7 64.7	0.36 0.53 0.53 0.39 0.40	84.4 66.7 68.0 79.6 78.7	9.8 10.2 9.5 7.01	58.3 63.6 61.8 62.1 61.0	33 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
840102 T, 840103 E	840102 TADORNA X INIA 66 840103 ENTRY 29 (1980) UC489	INC.#2 INC.#24	HRS	63.1	68.4 66.8	0.35	85.5	10.4	62.8	4M 3M
1/ Observ	1/ Observed Values Corrected to 14% Moisture Basis.	is.		5/ Part	Particularly Promising Overall Quality Characteristics	omising Ov	erall Quali	ity Charact	teristics.	

5/ Particularly Promising Overall Quality Characte 6/ Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 10% Protein. 4/ Observed Values Corrected to 10% Protein.

	5:		

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NURSCO	m		DAVIS, CA	CA					D.G. GILCHRIST
LABNUM	VARIETY	ONGI	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR RMKS
					3/			4/	
840088 840088 840089 840090	TADORNA X INIA 66 TADORNA X INIA 66 YECORA ROJO TADORNA X INIA 66	406/3 406/4 406/5	HRS HRS HRS	60.0 64.9 70.3	60.7 64.8 67.0	2000-	875 815 1015	918 809 810	1 6 L-LVOL&BCRGR
840091	TADORNA X INIA 66	1/904	HRS	67.5	67.1	2.6	855	830	b L-LVOL&BCRGR
840092 840093 8400093	TADORNA X INIA 66 TADORNA X INIA 66 ANZA (CIO1528)	406/8	HRS	60.9	61.6	2.5	700	743	
840095	(TADORNA X 166) X ANZA UC489 RESISTANT SEL.	406/19 406/19 406/22	HRS HRS	62.1 63.6	61.9 63.8	2.2	670 750 790	713 738 802	9 P-MTIME&LVOL 8 P-MTIME&LVOL 8 P-MTIME&LVOL
	TADORNA X INIA 66 PARANA X (GS'S' X CR'S') X GTA'S' PARANA X (GS'S' X CR'S') X GTA'S'	406/25 406/28 406/29	SWS	60.7 68.4 66.9	60.9 68.2 67.4	2.3	860 670 660	872 658 691	3 Q-TEXTURE&MTIME 9 VP Overall
840100	(TADORNA X 166) X ANZA (TADORNA X 166) X ANZA	407/27	HRS	64.4	63.7	2.0	865 685	822 704	4 VP Overall 8 VP Overall
840102 840103	840102 TADORNA X INIA 66 840103 ENTRY 29 (1980) UC489	INC.#2	HRS	67.8	67.4	2.4	835	810 794	5 P-LVOL&BCRGR 7 P-LVOL&BCRGR
COMMENTS	COMMENTS: The selections with footnotes have some assets	1							

COMMENTS: The selections with footnotes have some promise for good overall quality. No selection was equivalent in protein to Yecora Rojo. See Remarks column for major deficiencies.

L = Low; P = Poor; Q = Questionable; VP = Very Poor

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G.W. BRUEHL

	SNOW MOLD
	LAB.
AR	EAT QUALITY LAB
USDA, SEA A	WESTERN WHEAT PULLMAN, WA.

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NURSCO

DOUGLAS CO., WA

		the same of the sa								
LABNUM VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
840105 PETE 2273/SPRAGUE 840105 PETE 2273/SPRAGUE 840106 77-99 840107 FR-20/77-291//77-294 840108 DAWS	80-98-SW 5/ WA6819 6/ WA6820 6/ C1017419	SWW SWW HRW SWW SWW	62.8 62.0 62.1 60.8 62.4	67.0 67.6 67.7 67.6 67.6	0.40 0.34 0.34 0.39	80.7 85.2 85.1 82.6 85.0	6.0 6.0 6.3	.50.4 50.9 55.6 51.9	51 51 11	58.3
840109 74-254/DAWS F1//77-294 840110 HATTON	6/ C1017772	SWW	62.0	67.9	0.35	85.4	6.8	52.7	2L 8L	8.09
LABNUM	ONGI	CLASS	BABSC 3/	MTIME	TAOL	LVOLC 4/	BCRGR	1000	CODIC 4/	RMKS
840104 SPRAGUE/CAPPELLE F1//SPRAGUE 840105 PETE 2273/SPRAGUE 840106 77-99 840107 FR-20/77-291//77-294 840108 DAWS	80-98-SW WA6819 WA6820 CJ017419	SWW SWW HRW SWW SWW	57.2	4.3	049	572	_	9.22 9.46 8.76 9.01 8.89	9.22 9.46 8.84 9.000-N	Q-MSCOR
840109 74-254/DAWS F1//77-294 840110 HATTON	C1017772	SWW	59.6	5.5	089	909	9	9.24	9.33	

Absorption at 14% Moisture Corrected to 6% Protein. Observed Values Corrected to 14% Moisture Basis.

Observed Values Corrected to 6% Protein.

5/ Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.

All of these selections have acceptable milling and baking quality, however the protein level was so low that reliable evaluation of the bread baking quality of the HRW (WA6820) selection is questionable. On the "as is" basis it appears slightly better in milling than Hatton, but slightly poorer in baking properties. COMMENTS:

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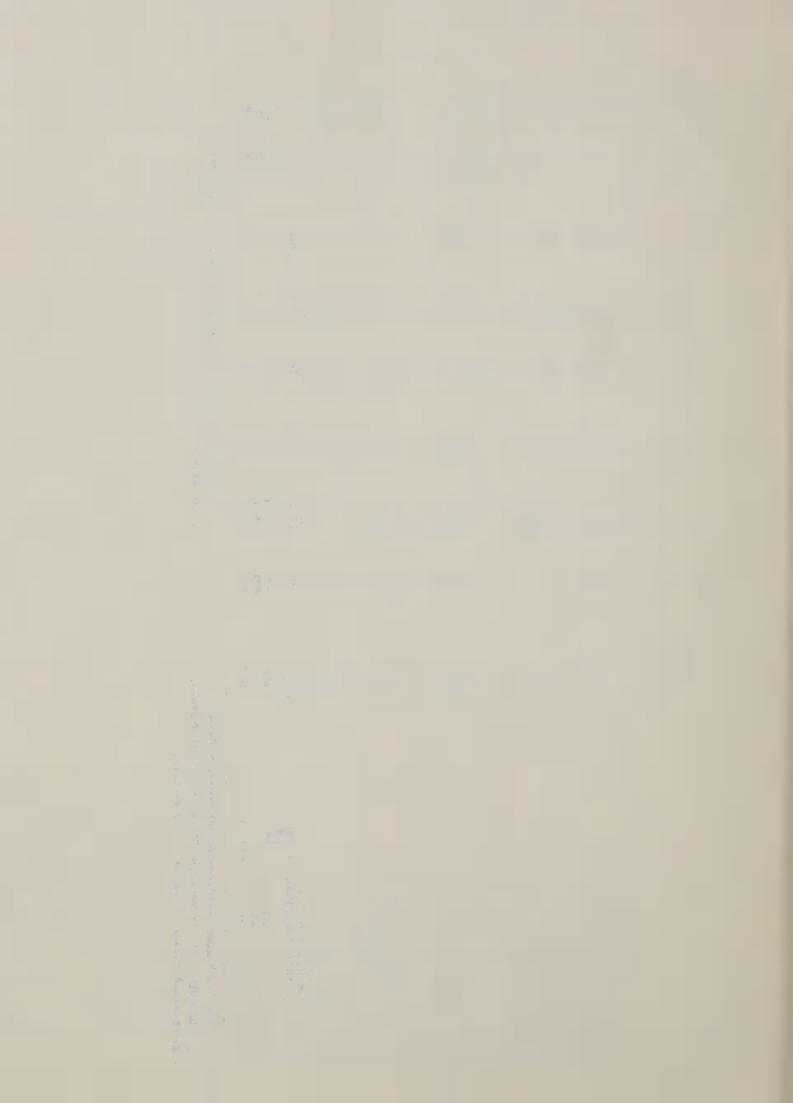
USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.	8	BUTTE CO. RI	REGIONAL						PAGE
NUESCO 5		BUTTE CO.,	, CA					L.F. JA	JACKSON
LABNUM	ONOI	CLASS	TWT	FYELD	FASH 1/	MSCOR	F PROT	MABSC 3/	MIYP
840111 ANZA (C1015284) 840112 YECORA ROJO 840113 PHOENIX (C1017962) 840114 YOLO (C1017961) 840115 KLASIC	20 112 221 353 415	HRS HWW HRS	64.7 63.7 64.8 64.9	73.0 71.7 73.1 73.7 72.8	0.39 0.39 0.38 0.37	88.4 86.9 89.1 89.8 88.9	9.2 9.8 9.4 9.4	58.0 58.6 58.6 58.1	2M 6H 3M 3M 7H
840116 WESTBRED 911 840117 NK 2437 840118 NK 4236 840119 TADORNA X INIA 840120 TADORNA X INIA	521 6/536 5/538 544 546	HRS HRS HRS	63.8 63.6 61.5 62.4 60.7	68.8 71.5 72.6 70.6	0.42 0.41 0.40 0.40	82.5 87.9 87.3 85.2 83.0	10.2 111.1 10.8 9.7	61.3 60.4 61.9 57.6	8 W W H H W S S S S S S S S S S S S S S S
840121 (NUDIF X INIA) X ANZA 840122 IPRI 8314 840123 IPRI 8322 840124 9031 840125 WRE 80-34	547 6/619 620 623 624	HRS HRS HRS HRS	62.8 63.0 63.8 63.8	72.0 72.2 69.5 70.4	0.40 0.37 0.37 0.37 0.35	86.8 88.5 85.6 86.4 87.0	10.1 10.5 11.7	58.3 61.3 60.6 60.5	2M 5H 4H
840126 NK 505 840127 PORTOLA X ANZA X 2 840128 TZPP X ANZA X 2 840129 TZPP X ANZA X 2 840130 TZPP X ANZA X 2	6/625 5/627 5/628 630	HRS HRS HRS	64.2 66.3 64.6 65.7 65.9	70.7 71.4 72.6 72.9 73.0	0.41 0.35 0.40 0.39	84.6 88.8 87.2 88.3 89.5	10.7 10.8 10.2 10.2	60.4 59.6 58.9 58.9	33HH 233H 234
840131 CM 43367 840132 LRR ANZA 840133 BB S' X ANZA 840134 AZTECA X ANZA 840135 ((INIA X CNO)CAL) X ANZA	631 632 633 634 634	HRS HRS HRS HRS	64.7 65.6 64.9 65.6	69.2 70.9 74.9 69.9	0.38 0.37 0.41 0.41	84.5 69.0 89.2 84.0 88.2	11.5 10.6 9.3 10.1	56.8 56.4 57.2 58.8	XXXXX 000000
840136 ((INIA X CNO)CAL) X ANZA 840137 STURDY X ANZA 840138 YECORA ROJO S' X MEXIFEN	636 637 5/638	HRS HRS	65.0 65.3 64.8	73.8 71.1 74.1	0.40	88.6 86.2 86.3	10.8	57.9 57.8 58.0	28M 8M

<sup>5/</sup> Particularly Promising Overall Quality Characteristics.
6/ Promising Overall Quality Characteristics. 1/ Observed Values Corrected to 14% Moisture Basis.  $\overline{3}/$  Absorption at 14% Moisture Corrected to 10% Protein.  $\overline{4}/$  Observed Values Corrected to 10% Protein.

NURSCO 5		BUTTE CO.,	, CA					L.F. JACKSON
LABNUM	ONO	CLASS	BABS	BABSC 3/	MTIME	TAOL	LVOLC 4/	BCRGR RMKS
840111 ANZA (C1015284) 840112 YECORA ROJO 840113 PHOENIX (C1017962) 840114 YOLO (C1017961) 840115 KLASIC	20 112 221 353 415	HRS HRS HWW HRS	58.3 63.9 60.0 59.1 61.6	59.1 62.4 60.2 59.7 61.2	1.5.2.2 6.8 8.1.2.4.1	807 987 933 925	857 894 945 962 968	8 2 5 P-MTIME&BCRGR 5 P-MTIME&BCRGR 2 Excellent Overall
840116 WESTBRED 911 840117 NK 2437 840118 NK 4236 840119 TADORNA X INIA 840120 TADORNA X INIA	521 536 538 544 546	HRS HRS HRS HRS	64.1 64.1 64.8 58.9 59.4	63.9 63.0 64.0 59.2 58.5	4.505.3 1.800.3	910 985 1003 840 928	898 917 953 859 872	3 Q-FYELD 2 2 2 8 VP-MTIME, LVOL&BCRGR 4 P-MTIME&BCRGR
840121 (NUDIF X INIA) X ANZA 840122 IPRI 8314 840123 IPRI 8322 840124 9031 840125 WRE 80-34	547 619 620 623 624	HRS HRS HRS HRS	59.3 65.3 64.9 65.4 63.0	59.2 63.9 64.4 63.7 62.6	23.22	878 975 930 930 953	872 888 899 825 928	8 VP-MTIME&BCRGR 2 5 Q-BCRGR 5 Q-BCRGR 4 Q-BCRGR
840126 NK 505 840127 PORTOLA X ANZA X 2 840128 TZPP X ANZA X 2 840129 TZPP X ANZA X 2 840130 TZPP X ANZA X 2	625 627 628 629 630	HRS HRS HRS HRS	63.7 60.0 60.7 60.7 60.7	63.0 59.2 60.5 60.5	2.6	930 920 990 900 960	887 978 978 929	3 8 VP-MTIME&BCRGR 2 7 P-MTIME&BCRGR 4 P-MTIME&BCRGR
840131 CM 43367 840132 LRR ANZA 840133 BB S' X ANZA 840134 AZTECA X ANZA 840135 ((INIA X CNO)CAL) X ANZA	631 632 633 634 635	HRS HRS HRS HRS	60.9 57.6 56.5 58.9 60.3	59.4 57.0 57.2 58.8 59.4	22	885 823 925 870 950	792 786 968 864 894	8 P-MTIME, LVOL&BCRGR 8 P-MTIME, LVOL&BCRGR 8 P-MTIME&BCRGR 2 P-MTIME
840136 ((INIA X CNO)CAL) X ANZA 840137 STURDY X ANZA 840138 YECORA ROJO S' X MEXIFEN	A 636 N 638	HRS HRS HRS	57.3 60.1 59.8	56.5 59.4 59.6	1.4 2.9 4.7	935 850 945	885 807 933	4 P-MTIME&BCRGR 4 P-LVOL&BCRGR 2

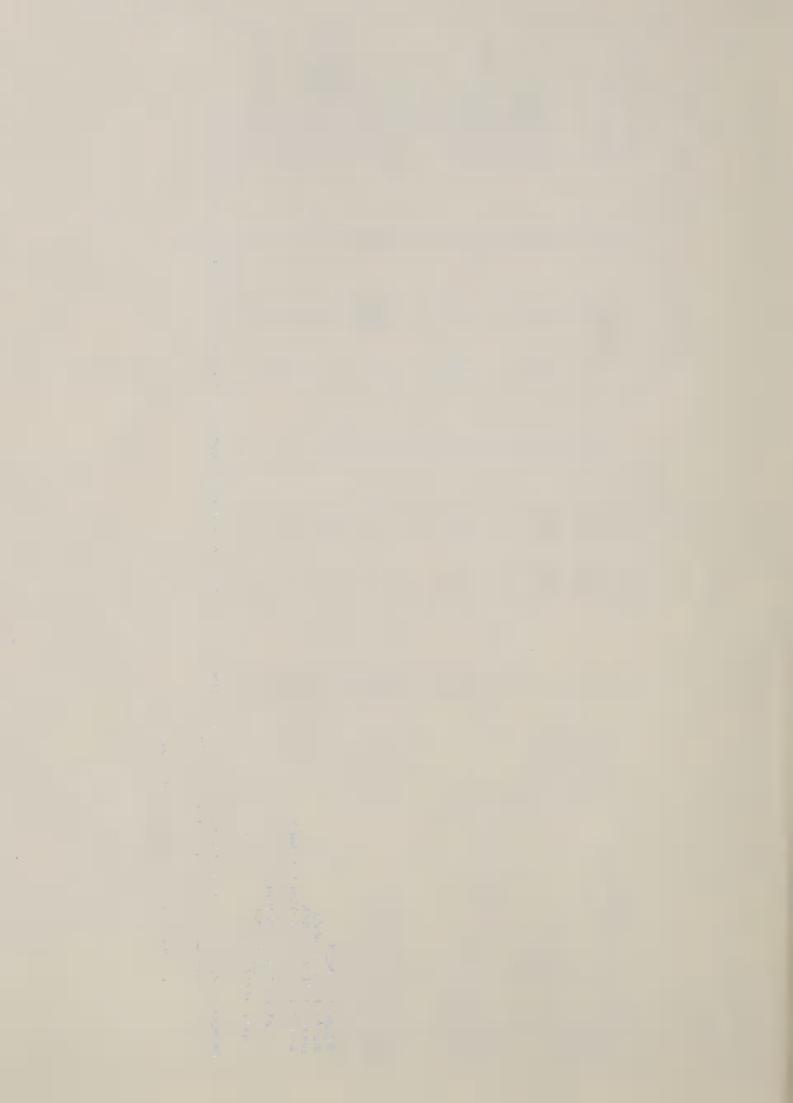
deficiencies and weaknesses of the other selections. Most common deficiencies were weak and short dough mixing properties and heavy Outstanding selections for overall quality are IDNO.'s 538, 628, and 638, which are NK4236, TZPP X Anza X 2, and Yecora Rojo 's' X Mexifen, respectively. Others with promising overall quality are IDNO.'s 536, 619, 625, and 635. See "Remarks" column for coarse bread crumb grain. COMMENTS:

NURSCO	9		SA	SACRAMENTO	CO., CA					L.F. JAC	JACKSON
LABNUM	VAF	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
840140 840140 840141 840142 840143	ANZA (C1015284) YECORA ROJO PHOENIX (C1017962) YOLO (C1017961) KLASIC		20 112 221 353 415	HRS HWW HRS HWS	64.7 65.7 64.4 65.1	71.6 70.5 71.6 71.9 72.3	0.35 0.36 0.36 0.34	88.7 87.0 88.2 89.6	8.00 8.00 7.08 9.09	58.1 62.0 58.2 60.0 61.2	23.87H 54.38 54.38 54.38
840144 840145 840146 840147 840148	WESTBRED 911 NK 2437 NK 4236 TADORNA X INIA TADORNA X INIA		521 5/536 5/538 544 546	HRS S RH	63.9 65.7 64.4 64.3 63.9	66.8 69.6 71.4 71.5	0.37 0.36 0.37 0.35 0.34	82.6 86.1 87.8 88.9 89.0	880088 700084	60.5 60.4 64.2 57.1	M M H M M M M M M M M M M M M M M M M M
840149 840150 840151 840152 840153	(NUDIF X INIA) X IPRI 8314 IPRI 8322 9031 WRE 90-34	ANZA	547 6/619 6/620 623 624	HRSS S R	62.9 63.9 64.5 64.3	71.6 70.8 68.8 69.2 68.7	0.36 0.36 0.36 0.35	88888 7.7.7.0 7.7.7.0	9.00 10.3 10.8 9.9	57.2 64.4 63.2 62.8	33M 4H 4H 3H
840154 840155 840156 840157 840158	NK 505 PORTOLA X ANZA X 2 TZPP X ANZA X 2 TZPP X ANZA X 2 TZPP X ANZA X 2		625 627 628 629 630	H H H H R R S S S S S S S S S S S S S S	65.2 66.1 64.8 64.8	68.7 69.8 72.6 72.3	0.38	85.1 885.2 87.5 90.3	9.9 9.9 6.0 6.0 9.0 9.0	661.22	4M 22H 33M 33M
840159 840160 840161 840162 840163	CM 43367 LRR ANZA BB S' X ANZA AZTECA X ANZA ((INIA X CNO)CAL) X ANZA	ANZA	631 632 633 634 67 635	HWS HRS HRS HRS	64.7 64.4 65.1 65.5	67.9 71.3 72.4 69.7	0.35	883.7 889.7 87.5 87.6	10.1 9.0 7.9 10.5	56.5 57.8 57.3 58.7	22 H 32 M 3 M
840164 840165 840166	((INIA X CNO)CA STURDY X ANZA YECORA ROJO S'	(L) X ANZA X MEXIFEN	636 637 6/638	H H H H H K S S S S S S S S S S S S S S	65.4 66.1 64.0	72.5 71.0 72.9	0.36	89.1 86.7 88.8	0.0°5 0.0°5 4.0°5	57.6 57.9 58.4	8
1/ Obser 3/ Absor 4/ Obser	Observed Values Corrected to 14% Moisture Basis. Absorption at 14% Moisture Corrected to 10% Protein. Observed Values Corrected to 10% Protein.	to 14% Moisture Basis. Corrected to 10% Protte to 10% Protein.	ein.		5/ Parti 6/ Promi	cularly Promi sing Overall	omising Ove 11 Quality	sing Overall Qualit Quality Characteris	ity Characte istics.	eristics.	



NURSCO 6	VS.	SACRAMENTO	CO., CA					L.F. JACKSON
LABNUM	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR RMKS
840139 ANZA (C1015284) 840140 YECORA ROJO 840141 PHOENIX (C1017962) 840142 YOLO (C1017961) 840143 KLASIC	20 212 353 415	HRS HWW HRS HWS	57.6 64.9 57.6 58.5 64.3	58.7 64.7 59.7 64.9	- 7.0.1.4 8.0.08.2	740 865 825 850 900	814 853 906 924 937	9 P-MT, LVOL&BCRGR 2 P-MT, &BCRGR 8 P-MT, &BCRGR
840144 WESTBRED 911 840145 NK 2437 840146 NK 4236 840147 TADORNA X INIA 840148 TADORNA X INIA	521 536 538 544 546	H H H H R S S S S S S S S S S S S S S S	63.2 63.2 65.6 56.1	64.4 63.3 66.1 57.3	3.52	840 875 870 700 695	921 881 901 774 794	5 P-FYELD&BCRGR 3 2 VP OVERALL BAKING 9 VP OVERALL BAKING
840149 (NUDIF X INIA) X ANZA 840150 IPRI 8314 840151 IPRI 8322 840152 9031 840153 WRE 90-34	547 619 620 623 624	H H H H R R S S S S S S S S S S S S S S	59.0 67.72 67.72 65.6	59.4 68.3 66.9 65.9	87.000 87.000	765 895 860 860	790 876 813 810 866	9 VP OVERALL BAKING 3 Q-BCRGR 3 Q-LVOL&BCRGR 6 P-BCRGR
840154 NK 505 840155 PORTOLA X ANZA X 2 840156 TZPP X ANZA X 2 840157 TZPP X ANZA X 2 840158 TZPP X ANZA X 2	625 627 628 630	TTTTT XXXXXX XXXXXX	64.8 61.9 64.4 63.4	64.9 62.0 64.1 64.3 65.3	2.2.2.5.5.	820 775 925 800 885	826 781 906 856 891	5 P-LVOL&BCRGR 8 P-LVOL&BCRGR 3 Q-LVOL 6 P-BCRGR 6 P-MTIME&BCRGR
840159 CM 43367 840160 LRR ANZA 840161 BB S' X ANZA 840162 AZTECA X ANZA 840163 ((INIA X CNO)CAL) X ANZA	632 633 634 635	HRS HRS HRS HRS	58.3 572.3 601.2	598.25 599.52 661.52 60.44	20-00	705 720 755 810 835	699 782 873 829 804	9 VP-LVOL, BCRGR&FYELD 9 VP-LVOL, BCRGR&FYELD 9 VP-LVOL, BCRGR&FYELD 4 Q-MTIME&BCRGR
840164 ((INIA X CNO)CAL) X ANZA 840165 STURDY X ANZA 840166 YECORA ROJO S' X MEXIFEN	636 637 638	HRS HRS	58.8 60.9 61.5	59.3 60.6 63.1	1.8 2.0 4.7	765 825 825	796 806 924	9 VP-MTIME, LVOL&BCRGR 8 VP-MTIME&BCRGR 3

COMMENTS: Most common deficiencies among these selections were short mixing and weak dough properties (MTIME), low loaf volume (LVOL) and heavy and dense bread crumb structure (BCRGR).



	LAB.	
	QUALITY	
SEA AR	WHEAT	1.10
JSDA, SE	VESTERN WHEAT	NAMILIE

SEED QUALITY TEST

NURSCO 7		MOSCOW,	OW, 1D	•					0	C. T. LIU	
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	1000
840167 840168 840169 840170 840171		1080-129 1080-270R 1080-628 1080-1228 1081-63R	SWW HRW SWW SWW HRW	59.6 62.1 62.3 63.3	64.7 68.5 71.0 64.9 66.8	0.35 0.32 0.31 0.27	81.3 87.2 91.8 86.5	8.5 11.0 9.4 9.2	51.8 55.0 53.0 59.2	2 L 2 L 2 L 2 L 2 L 2 L 2 L 2 L 2 L 2 L	9.24 8.47 9.34 9.41
840172 840173 840174 840175		1081-63 1081-126 1081-273 5/1081-277 5/108-706	HWW SWW SWW SWW SWW	62.3 61.5 60.3 62.1 58.7	66.6 65.0 68.8 70.4 70.9	0.33 0.34 0.35 0.35	84.7 82.5 85.9 88.7 89.4	89.27	0100010001	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	37443
840177 840178 840179 840180 840181		6/ 1081-1033 1081-1061 1081-1189 1081-1190R	HWW SWW SWW HRW SRW	60.8 56.3 60.7 59.3	69.4 67.3 62.8 66.7 65.1	0.38	87.8 82.7 76.6 82.1	9.0 8.8 10.7 9.2	57.6 52.5 54.1 58.5	233 233 21	8.75 9.14 8.84 8.15
840182 840183 840184 840185 840186		6/1081-1364 6/1081-1375 5/1081-1468 6/1081-1643 1081-1644	MMS MMS MMS MMS	56.2 58.7 59.2 57.4 58.9	69.1 68.6 67.6 67.7 65.1	0.39 0.39 0.34 0.38	84.4 83.5 83.0 79.5	88088 87078	51.5 52.3 51.9 49.1	22 22 11 6M	40004
840187 STEPHENS REP#1N 840188 DAWS 840189 LEWJAIN 840190 HILL 81 840191 NUGAINES	Z	C1017596 C1017419 C1017909 C1017954 C1013968	MMS MMS MMS MMS	52.8 56.7 54.0 56.1	65.7 64.9 63.9 67.0 62.5	0.41 0.43 0.42 0.42	78.8 77.7 75.2 79.9	10.9 9.4 10.0 11.0	52.2 54.9 53.9	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	8.96 8.84 8.76 9.10
$\frac{1}{2}$ Observed Values Corrected to 14% Moistun $\frac{3}{4}$ Absorption at 14% Moisture Corrected to $\frac{4}{4}$ Observed Values Corrected to 9% Protein	Corrected to 14% Moisture Basis. % Moisture Corrected to 9% Protein Corrected to 9% Protein.	in.		5/ Partio 6/ Promis	cularly sing Ove	ly Promising Overall Quali	sing Overall Quality Ch Quality Characteristics	Quality Ch	Characteristic.	stics.	

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			55.00

C.T. LIU	BCRGR RMKS	VP-FYELD 7 VP-MT, LVOL&BCR 6 P-RCRGR	6 P-BCRGR 6 P-BCRGR	8 P-LVOL&BCRGR Q-FYELD 8 P-BCRGR O-FYFID	8 P-LVOL&BCRGR	
	LVOLC 4/	746	830	740	736	
	TAOL	870	855	740	755	
	MTIME	1.3	3.1	2.9	0.4	
	BABSC 3/3	59.0	62.5	58.3	59.6	
	BABS	61.0	63.5	58.3	59.9	
٠	CODIC 4/	9.18 8.63 9.38 9.40	8.37 8.52 9.44 9.14	8.75 9.02 9.02 17	9.36 9.04 9.35 9.55	9.17 8.88 8.87 9.32 8.82
MOSCOW, ID	CLASS	SWW HRW SWW SWW HRW	MAM AWS	HWW SWW SWW HRW SRW	SWW SWW SWW HWW HWW	MMS MMS MMS MMS
MOSC	ONO	1080-129 1080-270R 1080-628 1080-1228 1081-63R	1081-63 1081-126 1081-273 1081-277 108-706	1081-1033 1081-1061 1081-1189 1081-1190R	1081-1364 1081-1375 1081-1468 1081-1643 1081-1644	C1017596 C1017419 C1017909 C1017954 C1013968
	VARIETY					STEPHENS REP#1N DAWS LEWJAIN HILL 81 NUGAINES
NURSCO 7	LABNUM	840168 840168 840169 840170 840171	840172 840173 840174 840175 840175	840177 840178 840179 840180 840181	840182 840183 840184 840185 840185	840187 STEPHENS 840188 DAWS 840189 LEWJAIN 840190 HILL 81 840191 NUGAINES

RGR

The hard COMMENTS: The check varieties with this group of selections were atypical in milling properties, which may be partially due to the low test weights. Experimental selections were judged accordingly. Protein level was too low to provide meaningful bread analysis. wheats may be better than they appear here.

VP = Very Poor; P = Poor; Q = Questionable

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NURSCO

		SUTTER CO.,	CA					L.F. J.	JACKSON
LABNUM	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
840194 ANZA (C1015284) 840195 YECORA ROJO 840196 PHOENIX (C1017962) 840197 YOLO (C1017961) 840198 KLASIC	20 112 221 353 415	HRS HWW HRS HWS	64.6 65.7 63.9 64.2	70.5	0.39 0.40 0.40 0.37	85.5 84.2 86.5 87.0	8.8	56.2	22L 32L
840199 WESTBRED 911 840200 NK 2437 840201 NK 4236 840202 TADORNA X INIA 840203 TADORNA X INIA	521 536 538 544 546	HRS HRS HRS S S S S S S S S S S S S S S			3 40000	7 2 2 2 2 2			8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
840204 (NUDIF X INIA) X ANZA 840205 IPRI 8314 840206 IPRI 8322 840207 9031 840208 WRE 80-34	547 619 620 623 624	HRS HRS HRS	62.2 63.3 64.7 64.7	71.0 69.1 67.5 67.5 68.5	0.39 0.39 0.39 0.37	85.9 84.3 82.5* 83.3*	8.7 8.3 8.9 8.9	800-	3 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
840209 NK 505 840210 PORTOLA X ANZA X 2 840211 TZPP X ANZA X 2 840212 TZPP X ANZA X 2 840213 TZPP X ANZA X 2	625 627 628 629 630	HRS HRS HRS HRS	65.0 65.3 65.5 65.5	67.5 68.3 70.1 71.0	0.43 0.38 0.41 0.40 0.38	80.3** 84.3 85.5		0,0,0,0	32 32 52 52 52 52 52 52 52 52 52 52 52 52 52
840214 CM 43367 840215 LRR ANZA 840216 BB S' X ANZA 840217 AZTECA X ANZA 840218 ((INIA X CNO)CAL) X ANZA	631 632 633 634 635	HWS HRS HRS HRS	65.2 64.7 63.6 65.4 64.9	67.8 70.1 70.9 67.2 69.5	0.42 0.39 0.37 0.41	81. 4* 85. 4 87. 1 81. 1**	7.7 7.7 7.4 7.3	± + + + + + + + + + + + + + + + + + + +	55115
840219 ((INIA X CNO)CAL) X ANZA 840220 STURDY X ANZA 840221 YECORA ROJO S' X MEXIFEN	636 638	HRS HRS	65.7 65.1 63.7	70.5 68.9 71.6	0.39 .	85.6 83.7 86.6	8.3 8.0 7.1	± 10 ±	31 L 81 L
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 8% Protein. 4/ Observed Values Corrected to 8% Protein.	Moisture Basis. ted to 8% Protein.		5/ Particula 6/ Promising	11y Ove	ising Quali	Overall Quality Ch ty Characteristics	y Characte	Characteristics.	

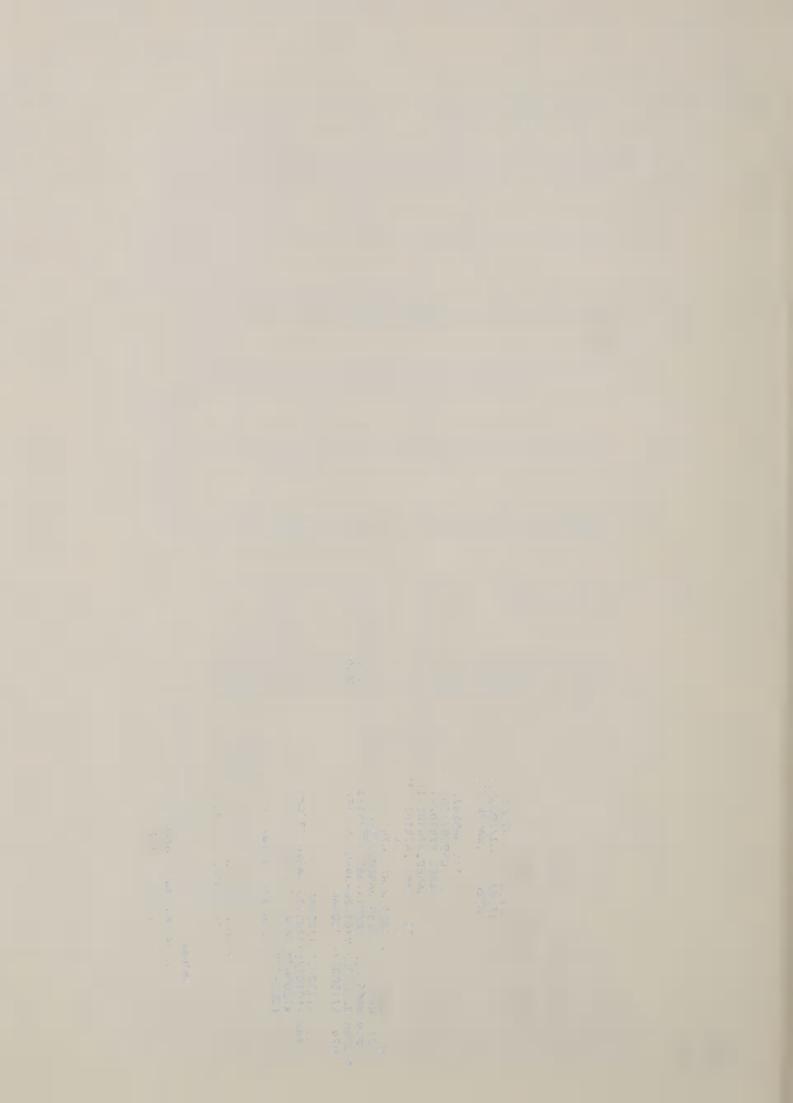
Due to the very low protein level of this Sutter Co. nursery no bread baking tests were performed. We believe the data would not have been meaningful. Selections with questionable or poor milling performance are noted with a \* or \*\*, respectively, on the milling COMMENTS:

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 9		LIND,	WA					C. F. KO	KONZAK
LABNUM VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
840222 MCKAY 840223 NK 751 840224 K73579/80RAH 840225 K73772/80RAH K7900748 840226 K74153/K74093 K8000946	C1017903 6/NK761011 6/WA7075 6/WA7181 WA7182	HRS HRS HRS	60.5 61.3 60.1 62.6 56.6	70.1 71.5 69.7 71.1	0.34 0.35 0.36 0.34	87.6 88.7 86.5 88.9 85.0	11.9	61.2 61.9 63.1 60.6 66.7	6H 5H 4H 8M 5H
840227 WA7184/K7205061 K8001257 840228 VH070251/TWIN K73287 840229 K74036/(CI17267, BORAH) K75037 840230 WA6171/(K74027, VJ720503/(OD65, LMH66/2/ 840231 JARAL S'(3)/(K7205114, WA5243/3/CAN3945	6/WA7185 6/K7801395 K8000784 H66/2/ 6/K8001209 AN3945 K8001307	HRS HRS HRS HRS	61.5 59.9 61.8 59.7	69.6 69.9 71.4 70.1	0.33 0.34 0.39 0.39	87.9 87.4 89.7 85.2 84.6	12.1 11.6 11.6 10.3	61.3 61.6 61.9 61.9	88 22 47 44
840232 JARAL S'(3)/(K7205114, W45243/3/CAN3945 K8001309 840233 K7205209/(VH073324, C59287/101-6536// K8001394 840234 WA6823, C117689/WARED, K74102-118 NZSEL.45/HP830004 840235 WA6823, C117689/WARED, K74102-118 NZSEL.8 HP830006 840236 WA6823, C117689/WARED, K74102-118 NZSEL.10 HP830007	AN3945 K8001309 36// K8001394 NZSEL.45/HP830004 NZSEL.8 HP830006 NZSEL.10 HP8300075/	HRS HRS HRS HRS	60.3 60.6 57.8 59.9	68 70.5 70.5 68.1	0.33	84.1 88.7 86.7 86.0 86.0	11.01	62.7 61.0 63.1 63.2 63.4	5H 4H 4H 4H
840237 WA6823, C117689/WARED, K74102-118 840238 WA6823, C117689/WARED, L74102-118 840239 WA6624, BORAH/C117689, K74127-339 840240 NZIZHP82 V761-28-J4-B2 NZ SEL.11 840241 E7130071-1/BORAH	NZSEL.20 HP8300126/ NZSEL.21 HP8300135/ NZSEL.6 HP8300185/ HP830029	HRS HRS HRS HRS	57.9 56.3 58.5 57.9	69.9 71.1 70.1 65.1	0.36	86.8 87.6 85.0 81.3	13.0 12.0 12.0	64.3 63.1 62.7 64.8 62.8	33H 33H 52H 54
840242 E7130071-1/BORAH 840243 ID0107/(J7205139, WA5261/3/CAN3845/HVII-5 840244 K7205078/JARAL S'(B) K76128 S.10 840245 (DND-7CXDAL-BB)PU S' 840246 K76130 K7205078/(CI14193, RED RIVER 68-1)	5/HVII-5/K8100289 6/K8100289 1BW80073 ER 68-1) K81053216/	HRS HRS HRS HRS	57.7 59.1 57.5 61.6	70.9 70.7 68.7 67.7 69.9	0.33 0.35 0.38 0.38	889.0 84.1 83.0 83.5	11.6	62.2 62.4 64.0 62.8 60.8	5H 6H 5H 4H 7H
840247 K76130 K7205078/(CI14193,RED RIVER 68-1) 840248 K76132 K7205088/SON64XTZPP-Y54/CUSTIN3 840249 K76136 K7305095/JARAL S'(B) S.2	ER 68-1) K8105331 <u>6</u> / USTIN3 K8105353 L8105405	HRS HRS HRS	60.09	71.1770.4	0.39	86.1 85.8 83.9	12.6 12.8 12.3	62.0 63.0 61.4	8H 7H 8M
1/ Observed Values Corrected to 14% Moisture Basis	Basis.		5/ Parti	Particularly Pr	Promising Ov	Overall Quality	ty Characteri	eristics.	

6/ Promising Overall Quality Characteristics.

 $<sup>\</sup>underline{3}/$  Absorption at 14% Moisture Corrected to 12% Protein.  $\underline{4}/$  Observed Values Correcte to 12% Protein.



6

NURSCO

LIND, WA

C.F. KONZAK

LABNUM	VARIETY	ONGI	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
840222 MCKAY 840223 NK 751 840224 K73579/BORAH 840225 K73772/BORAH 840226 K74153/K7409	MCKAY NK 751 K73579/BORAH K73772/BORAH K7900748 K74153/K74093 K8000946	C1017903 NK761011 WA7075 WA7181	HRS HRS HRS HRS	64.8 63.8 66.1 63.0 70.5	64.9 64.6 65.8 63.3 69.4	55.00 55.00 55.00 55.00	1140 1035 1015 965 1060	1146 1085 996 984 992	- 00 00 - C	Low FYELD
840227 WA7184/K7 840228 VH070251/ 840229 K74036/(C 840230 WA6171/(K	WA7184/K7205061 K8001257 VH070251/TW1N K73287 K74036/(C117267, BORAH) K75037 WA6171/(K74027, VJ720503/(OD65, LMH66/2/ JARAL S'(3)/(K7205114, WA5243/3/CAN3945	WA7185 K7801395 K8000784 K8001209 K8001307	HRS HRS HRS	64.1 63.3 62.9 62.9 63.7	64.0 63.7 63.3 64.6 64.3	4.7 7.0 3.0 3.0	955 1010 990 960 1000	949 1035 1015 1065		Q-BCRGR Q-MTIME&BCRGR Q-BCRGR
840232 JARAL S <sup>1</sup> (840233 K7205209/840234 WA6823, C1840235 WA6823, C1840235 WA6823, C1	JARAL S <sup>1</sup> (3)/(K7205114, WA5243/3/CAN3945 K7205209/(VH073324, C59287/101-6536// WA6823, C117689/WARED, K74102-118 NZSEL.4 WA6823, C117689/WARED, K74102-118 NZSEL.8 WA6823, C117689/WARED, K74102-118 NZSEL.10	K8001309 K8001394 HP830004 HP830006	HRS HRS HRS	64.4 62.1 66.5 66.3	65.4 63.7 66.3 66.4 66.1	33.00	990 1025 1115 1080	1052 1124 1103 1086	- 00 00 	Q-FYELD Q-BCRGR Q-BCRGR
840237 WA6823,CI17689/W 840238 WA6823,CI17689/W 840239 WA6624,BORAH/CI1 840240 NZIZHP82 V761-28 840241 E7130071-1/BORAH	WA6823, C117689/WARED, K74102-118 NZSEL.20 WA6823, C117689/WARED, L74102-118 NZSEL.21 WA6624, BORAH/C117689, K74127-339 NZSEL.6 NZIZHP82 V761-28-J4-B2 NZ SEL.11 E7130071-1/BORAH	HP830012 HP830013 HP830018 HP830029 K8000121	HRS HRS HRS HRS	68 65 66 66 3	67.0 64.8 65.4 66.5	5.5.5 5.5.5	1105 1105 1160 1210	1043 1037 1160 1210 1107	000m0	P-FYELD-Strong Fl
840242 E7130071-1/B0RAH 840243 ID0107/(J7205139 840244 K7205078/JARAL S 840245 (DND-7CXDAL-BB)P 840246 K76130 K7205078/	E7130071-1/B0RAH 1D0107/(J7205139, WA5261/3/CAN3845/HVII- K7205078/JARAL S'(B) K76128 S.10 (DND-7CXDAL-BB)PU S' K76130 K7205078/(CI14193, RED RIVER 68-1)	K8000123 K8100289 K8100338 IBW80073 K8105321	HRS HRS HRS HRS	64.5 65.2 65.8 66.3 62.3	64.9 65.1 65.7 63.5	2.7.5. 2.7.00.5.	1055 1130 1150 1060	1080 1124 1144 1072 1139	0-0- 0-0-	-FYELD -FYELD&BCRGR
840247 K76130 K7 840248 K76132 K7 840249 K76136 K7	K7205078/(C!14193,RED RIVER 68-1) K7205088/SON64XTZPP-Y54/CUSTIN3 K7305095/JARAL S'(B) S.2	K8105331 K8105353 L8105405	HRS HRS HRS	67.3 66.5 64.4	66.7 65.7 64.1	10.9 8.7 4.0	1070 1110 1070	1033 1060 1051	t 0-1	BCRGR FYELD, Q-BCRGR

Flr.

all performance was K8105353, but the long Red River type mixing requirements is a detriment and should be that had good considered.

Q = Questionable; P = Poor

NURSCO 10			LIND, W	WA					C.F. KOI	KONZAK
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
840250 E71300 840252 E71300 840252 K76131 840253 K76132 840254 K7623	E7130071-1/(C1008500, MAHRATTA) E7130071-1/(C1008500, MAHRATTA) K76131/(K74148, K68028-01/(K6701468, MINN K76132/(K75002, BEZ-1/(14X53-101)BURT#4 K76237/(WA6108, WA5243/3/C3845/H7-536//M)	K7900103 <u>6</u> / K7900115 <u>6</u> / K8200127 <u>6</u> / K8200154 K8200286 <u>6</u> /	HRS HRS HRS HRS	60.1 58.7 60.4 59.5	70.8 70.2 69.9 71.8	0.35 0.35 0.38 0.36	88.0 87.3 85.7 88.5 84.4	12.9	63.5 61.8 62.0 59.2 61.7	57 83 64 64
840255 K7624, 840256 K7624, 840257 K7624, 840258 K7624, 840259 K7624,	K76243/(WA6108, WA5243/3/C3845/H7-536//M) K76243/(WA6108, WA5243/3/C3845/H7-536//M) K76243/(WA6108, WA5243/3/C3845/H7-536//M) K76243/(WA6108, WA5243/3/C3845/H7-536//M) K76243/(WA6108, WA5243/3/C3845/H7-536//M)	K82003085/ K82003156/ K82003176/ K82003306/ K82003336/	HRS HRS HRS HRS	61.3 62.3 59.4 59.2	72.4 71.2 70.9 70.9 69.3	0.36 0.36 0.36 0.39	89.2 88.2 87.8 86.0 83.5		NNMMM	24 34 57 64
840260 K7624 840261 W/S75 840262 W/S75 840263 W/S75 840264 W/S75	K76243/(WA6108, WA5243/3/C3845/H7-536//M) W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X53 W/S753 W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X5) W/S753 W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X5) W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X5) W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X5) W/S75393/(K750002, BEZ-1(14X2, BEZ-1(	K82003465/ K8200499 K8200534 K8200543	HRS HRS HRS	58.9 58.5 60.7 61.7 62.5	71.6 70.6 70.8 71.0	0.37 0.37 0.32 0.31 0.29	88.0 86.9 89.6 90.3	13.0	60.8 62.5 61.3 62.2	7 H 7 M 7 M 7 M
840265 W/S75393/( 840266 W/S75393/( 840267 W/S75393/( 840268 W/S75393/( 840269 W/S75393/(	393/(K750002, BEZ-1(14X2, BEZ-1(14X53)	K8200550 K8200553 <u>6</u> / K8200558 K8200569 K8200578	HRS HRS HRS	59.9 58.7 58.8 59.5	70.6 70.4 69.9 67.9 7.07	0.33 0.36 0.33 0.34 0.35	89.0 86.8 88.0 85.4 87.9			NA TO SA TO
840270 W/S75393/(H 840271 W/S75393/(H 840272 W/S75393/(H 840273 W/S75393/(H	393/(K750002, BEZ-1(14X2, BEZ-1(14X5393/(K750002, BEZ-1(14X2, BEZ-1(14X53393/(K750002, BEZ-1(14X2, BEZ-1(14X53393/(K750002, BEZ-1(14X2, BEZ-1(14X53	K8200595 K8200596 <u>6</u> / K8200598 C1017903	HRS HRS HRS HRS	60.3 59.2 61.0 60.5	71.3 70.0 69.9 69.8 69.5	0.32 0.34 0.34 0.34	90.1 88.1 87.8 87.6 87.2	7.501.11	60.7 62.2 61.3 62.7 62.1	6M 2H 2H 5H
840275 K73579	К73579/ВОКАН	WA7075 6/	HRS	9.09	4.07	0.37	86.5	12.2	62.4	3Н
1/ Observed Va	1/ Observed Values Corrected to 14% Moisture Basis			F/ Dont?						

<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis.

 $<sup>\</sup>underline{3}/$  Absorption at 14% Moisture Corrected to 12% Protein.  $\underline{4}/$  Observed Values Corrected to 12% Protein.

<sup>5/</sup> Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.

ADVANCED HARD RED SPRING

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	MTIME	4.20 4.50 6.50	40400 90000	7.3.3 4.1 3.2 3.9	000000 000000	4.32.4 4.35.0 6.85.0
	BABSC 3/	67.2 64.5 63.7 61.9 63.4	64.2 64.6 66.0 64.3 66.1	63.5 65.2 65.3 65.0 64.9	63.8 64.1 64.1 64.0 62.8	64.4 63.9 66.0 64.4 64.8
WA	BABS	67.1 64.9 64.0 61.1 62.0	64.5 64.6 66.2 64.2 64.2	64.5 65.4 64.5 64.1	63.0 64.0 63.8 63.3	64.1 64.4 65.9 63.5 64.3
LIND,	CLASS	HRS HRS HRS HRS	HRS HRS HRS HRS	HRS HRS HRS HRS	HRS HRS HRS HRS	HRS HRS HRS HRS
	IDNO	K7900103 K7900115 K8200127 K8200154 K8200286	K8200315 K8200317 K8200317 K8200333	K8200346 K8200499 K8200534 K8200543 K8200543	K8200550 K8200553 K8200558 K8200569 K8200569	K8200595 K8200596 K8200598 K8200599 C1017903
10	VARIETY	E7130071-1/(C1008500, MAHRATTA) E7130071-1/(C1008500, MAHRATTA) K76131/(K74148, K68028-01/(K6701468, MINN K76132/(K75002, BEZ-1/(14X53-101)BURT#4 K76237/(WA6108, WA5243/3/C3845/H7-536//M)	K76243/(WA6108, WA5243/3/C3845/H7-536//M) K76243/(WA6108, WA5243/3/C3845/H7-536//M) K76243/(WA6108, WA5243/3/C3845/H7-536//M) K76243/(WA6108, WA5243/3/C3845/H7-536//M) K76243/(WA6108, WA5243/3/C3845/H7-536//M)	K76243/(WA6108, WA5243/3/C3845/H7-536//M) W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X53 W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X53 W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X53 W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X53 W/S75393/(K750002, BEZ-1(14X5)	W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X53 W/S7534 W/S75393/(K750002, BEZ-1(14X2, BEZ-1(14X5) W/S753) W/S75393/(K750002, BEZ-1(14X2, BEZ-1(1	W/S75393/(K750002,BEZ-1(14X2,BEZ-1(14X53 W/S75393/(K750002,BEZ-1(14X2,BEZ-1(14X53 W/S75393/(K750002,BEZ-1(14X2,BEZ-1(14X53 W/S75393/(K750002,BEZ-1(14X2,BEZ-1(14X53 MCKAY
NURSCO	LABNUM	840250 840251 840252 840253 840253 840253	840255 840256 840257 840258 840258	840260 V 840261 V 840262 V 840263 V 840264 V	840265 N 840266 N 840267 N 840268 N 840268 N	840270 840271 840272 840273 840273

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Others are border line in being acceptable and may be worthy of Principle deficiencies were low loaf volume and slightly heavy bread crumb. There are some very promising selections among these wheats. additional testing. COMMENTS:

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1108

1120

9.49

8.49

HRS

WA7075

840275 K73579/BORAH

Q = Questionable; P = Poor

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NURSCO 11		PULLMAN,	MA					C.F. KON	KONZAK
LABNUM	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
840276 K78550-8 PROSPUR/WA6389 840277 K78552-1 PROSPUR/BORAH 840278 K78554-2 PROSPUR/WA6109 HS 840279 K78554-3 PROSPUR/WA6109 HS 840280 K78554-6 PROSPUR/WA6109 HS	K8300028 K8300032 6/K8300038 K8300039 K8300043	HRS HRS HRS HRS	61.1 59.7 58.6 59.1	71.8 71.4 70.2 71.4 71.4	0.33 0.32 0.32 0.32 0.33	90.1 90.1 90.4 90.2	10.9	63.8 60.9 63.5 62.0 61.8	5H 5H 3M 4M
840281 K78580-4 BORAH/WA6369 840282 K78612-5 CLEOPATRA/WA6109 840283 K79344-2 K78556/(K78564, BORAH/WAMPUM) 840284 K79458-1 NHS1083-74//Y7511507/MN70170 840285 K79456-3 NHS1083-74//Y7511507/MN70170		HRS HRS HRS	59.5 59.4 62.0 61.3	73.0 70.8 68.7 69.1 71.5	0.30 0.30 0.30 0.34 0.29	92.3 90.5 88.7 86.6 91.7	10.6 11.3 9.9 9.9	63.2 63.7 61.4 60.8 61.5	7 H 8 8 M 8 M 8 M
840286 K79458-6 NHS1083-74//Y7511507/MN70170 840287 K79456-7 NHS1083-74//Y7511507/MN70170 840288 K79564-8 WA6510//K78560/NHS362-76 840289 K79534-12 WA6510//K78560/NHS362-76 840290 NK751	70 6/K8300110 6/K8300111 6/K8300134 6/K8300138 6/NK761011	HRS HRS HRS HRS	62.8 60.9 61.8 61.8	73.5 72.1 71.4 71.9	0.32 0.32 0.31 0.31	92.5 90.8 91.2 88.7	10.0 11.2 10.5 10.4	62.2 63.2 64.3 64.3	88M 66H 44H 54
840291 K73579/BORAH	6/WA7075	HRS	59.7	70.7	0.33	89.2	11.8	63.6	3Н
<pre>1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 11% Protein. 4/ Observed Values Corrected to 11% Protein.</pre>	sis. Protein.		5/ Part 6/ Prom	Particularly Promising Overall Quality Characteristics Promising Overall Quality Characteristics.	omising O	verall Qual y Character	ity Charac istics.	teristics.	

C.F. KONZAK

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

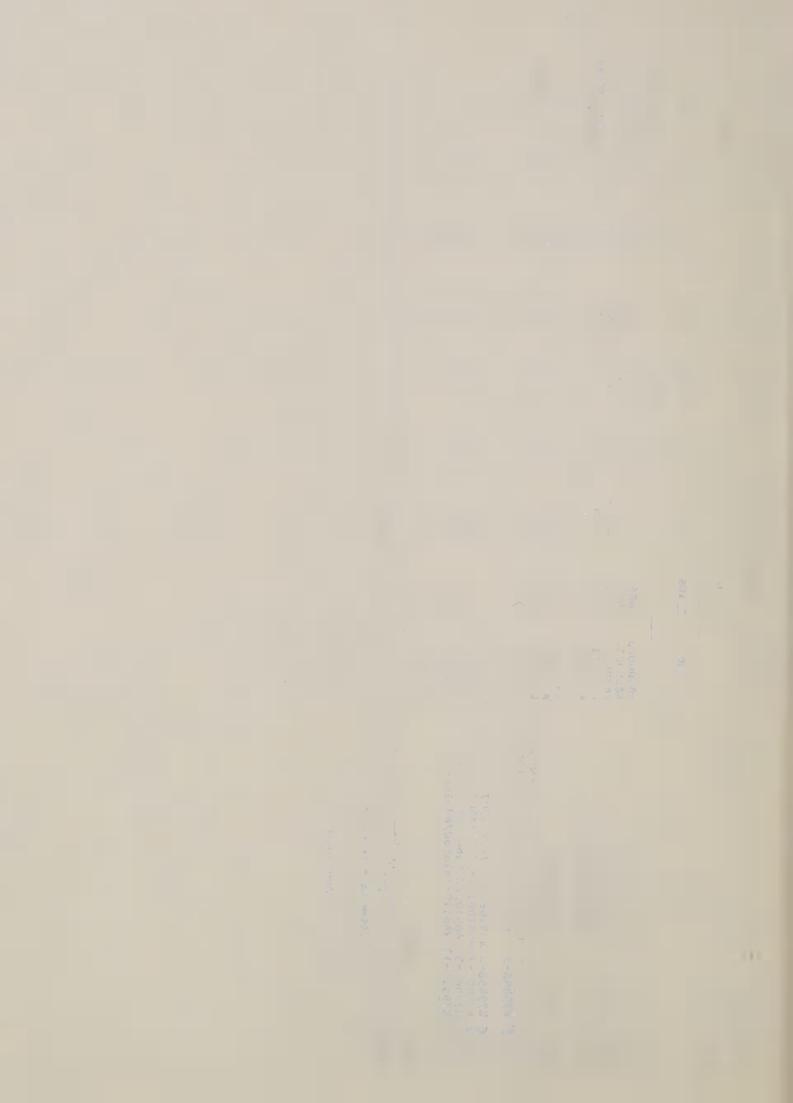
NURSCO 11

PULLMAN, WA

LABNUM VARIETY		IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR RI	RMKS
840276 K78550-8 PROSPUR/WA6389 840277 K78552-1 PROSPUR/BORAH 840278 K78554-2 PROSPUR/WA6109 840279 K78554-3 PROSPUR/WA6109 840280 K78554-6 PROSPUR/WA6109	H H S S S S H S S	K8300028 K8300032 K8300038 K8300039 K8300043	HRS HRS HRS HRS	66.4 62.4 64.5 61.4 62.0	66.5 62.6 64.2 62.2 63.0	20.4.0.0 2.1.5.1.0	925 915 990 940	931 927 971 990	5 P-BCRGR 4 Q-BCRGR 2 4 Q-MTIME8 4 Q-BCRGR	& BCRGR
840281 K78580-4 BORAH/WA6369 840282 K78612-5 CLEOPATRA/WA6109 840283 K79344-2 K78556/(K78564, B 840284 K79458-1 NHS1083-74//Y751 840285 K79456-3 NHS1083-74//Y751	BORAH/WA6369 CLEOPATRA/WA6109 K78556/(K78564,BORAH/WAMPUM) NHS1083-74//Y7511507/MN70170 NHS1083-74//Y7511507/MN70170	K8300048 K8300058 K8300094 K8300105	HRS HRS HRS HRS	62.5 65.2 62.3 60.4 61.9	62.9 64.9 63.6 63.5	10.6 3.7 4.2 5.0	925 1015 850 975 965	950 996 931 1043	3 Q-BCRGR 1 6 P-LVOL&BCRGR 2 2	SCRGR
840286 K79458-6 NHS1083-74//Y7511507/MN70170 840287 K79456-7 NHS1083-74//Y7511507/MN70170 840288 K79564-8 WA6510//K78560/NHS362-76 840289 K79534-12 WA6510//K78560/NHS362-76 840290 NK751	7511507/MN70170 7511507/MN70170 7611507/MN70170 7611507/MN3362-76	K8300110 K8300111 K8300134 K8300138 NK761011	HRS HRS HRS HRS	62.9 64.7 62.4 63.4 65.1	64.59 64.59 64.00 65.33	t3.09.1	975 1060 995 990 1080	1037 1048 1026 1027	00000	
840291 K73579/BORAH		WA7075	HRS	65.1	64.3	3.9	1065	1015	2	
840291 K73579/BORAH		WA7075	HRS	65.1				1065		1015

COMMENTS: Selection K8300058 has excessive mixing requirements. As a group these selections have good milling properties, but no check variety was submitted as a reference.

P = Poor; Q = Questionable



NURSCO 12		D. L	D. LLOYD FARM, TAMMANY	, TAMMAN					0,	SMITH/POPE	Ä
LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	1000
						1/		7	3/		
840292 DAWS 840293 NUGAINES 840294 HILL 81 840295 STEPHENS 840296 HYSLOP		C1017419 C1013968 C1017954 C1017596	MMS MMS MMS MMS	56.0 53.0 52.3	66.0 61.3 66.6 66.3	0.46 0.48 0.49 0.49	75.8 68.6 75.0 75.2 81.5	9.211.33	54.4 56.4 56.4 53.6	8337 837 87	8.85 8.44 8.75 9.14 8.60
840297 840298 840299 840300 840301 WESTON		6/ vm766 6/ swb462 10172 C1017727	HWW SWW SRW SWW HRW	57.7 55.2 58.8 57.9	66.1 65.6 69.2 65.6 70.1	0.48 0.46 0.38 0.44 0.38	76.1 75.4 84.8 76.6 85.9	11.2 10.8 11.9 10.3	55 53 53 53 53 53 53 53 53 53 53 53 53 5	3 3 H S 3 H	8.35 8.85 8.92 9.12 8.62
840302 PECK-17 840303 PECK X 6 VAR. 840304 HILL/PECK 840305 PECK/4 VAR. 840306 ELLIOT ETC.		6/10745325 6/ 6/ 6/	SWW SWW SWW SWW HRW	56.0 57.8 55.8 57.0 54.0	69.7 67.1 65.4 64.9	0.45 0.47 0.43 0.45	80.9 76.4 76.7 75.4 81.0	11.1 10.4 11.8 10.9	55.5 54.5 58.3 57.4 60.1	2 H 4 M 4 H 4 H	8.87 8.95 8.76 8.74 8.64
840307 ()/WA//PECK 840308 P/6 VAR. (51) 840309 P/4 VAR. (52) 840310 HILL/PECK (53) 840311 DAWS WEST (54)		6/ 6/ 6/ 5/C1017419	SWW SWW SWW SWW	51.3 59.2 59.3 57.8	68.0 67.4 68.1 69.3 68.6	0.49 0.48 0.48 0.47 0.38	76.8 76.4 77.3 79.1 84.3	12.4 7.5 6.9 7.0 6.5	51.2 53.8 52.8	8 L 8 L 8 L	8.66 9.25 9.30 9.24 9.24
1/ Observed Values Corrected to 14% Moisture Basis	ted to 14% Moistur	Basis		5 / Dort:	0						

<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis.  $\frac{3}{4}$  Absorption at 14% Moisture Corrected to 10% Protein.  $\frac{4}{4}$  Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.

NURSCO 12		0.0	LLOYD FARM, TAMMANY	, TAMMANY					S	SMITH/POPE	
LABNUM VARIETY	TY	ONGI	CLASS	CODIC	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
				4/		3/			4/		
840292 DAWS 840293 NUGAINES 840294 HILL 81 840295 STEPHENS 840296 HYSLOP		C1017419 C1013968 C1017954 C1017596	WWS SWW SWW SWW SWW SWW	8.84 9.02 9.28 8.82							
840297 840298 840299 840300 840301 WESTON		1D855 VM766 SWD462 1D172 C1017727	HWW SWW SWW HRW	8.45 8.94 9.13 9.16	63.2	62.0	1.1	925	851	31-1	3L-LVOL&BCRGR
840302 PECK-17 840303 PECK X 6 VAR. 840304 HILL/PECK 840305 PECK/4 VAR. 840306 ELLIOT ETC.		10745325	SWW SWW SWW HRW	9.00 8.99 8.96 8.84 8.79						8-6	Q-COOKIE DIA.(+
840307 ()/WA//PECK 840308 P/6 VAR. (51) 840309 P/4 VAR. (52) 840310 HILL/PECK (53) 840311 DAWS WEST (54)		C1017419	MMS SWW SWW SWW SWW	8.93 8.97 8.96 8.91 8.85							

(Hard)

The entire group of selections were low in test weight, which probably resulted in atypical flour yields, including the check varieties. The experimentals were judged accordingly. ID855 is hard white endosperm and not equal to Weston in bread baking. SWD462 is a soft red with good milling and cookie baking properties. ID172 has questionable milling. The Elliot etc. appears to be a hard red winter. COMMENTS:

L = Low; Q = Questionable

- m	PNWGC	CROP QUALITY SURVEY	ILITY SUI	RVEY							PAGE
PULLMAN, WA.											
NURSCO 13		ID, OR, WA	, WA								
LABNUM	IDNO	CLASS	TWI	WMIST	WPROT	VISC	AGTRO	FYELD	FABS	FPEAK	FSTAB
840312 REGION 1 - NORTH IDAHO 840313 REGION 2 - SOUTH IDAHO 840314 REGION 2 - SOUTH IDAHO 840315 REGION 2 - SOUTH IDAHO 840316 REGION 3 - PALOUSE		SWW SWW HRW HRS	59.7 60.7 62.6 60.9 60.3	10.2	8 4. 8 9. 7 . 2 6. 9 . 4 . 4 . 4 . 4 . 4 . 4 . 4 . 4 . 4	384 340 299 379 355	0.0000	71.8 71.5 69.5 71.4	53.4 54.2 59.7 63.9 53.0	2.50 2.50 8.50 8.50	2.3
840317 REGION 4 - BIG BEND 840319 REGION 4 - BIG BEND 840319 REGION 4 - BIG BEND 840320 REGION 4 - BIG BEND 840321 REGION 5 - WALLA WALLA		SWW CLUB HRW HRS SWW	61.4 65.3 63.0 61.3			21110		-3000	30000		
840322 REGION 6 - NORTH PENDLETON 840323 REGION 7 - COLUMBIA RIVER 840324 REGION 7 - COLUMBIA RIVER 840325 REGION 8 - WILLAMETTE VALLEY 840326 REGION 9 - WATERVILLE		SWW SWW CLUB SWW SWW	61.7 61.2 59.6 60.1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	8.8 7.0 7.7	347 324 3324 333	00000		N. M. O. M. O.	0.00	
840327 REGION 9 - WATERVILLE 840328 REGION 10 - HORSE HEAVEN 840329 REGION 10 - HORSE HEAVEN 840330 REGION 11 - BLUE MOUNTAINS		CLUB SWW CLUB SWW	61.7 61.0 60.2 60.3	9.4 9.8 7.00 10.2	88.6	345 343 362 365	0.00	73.5 71.7 73.9 72.0	53.1 52.7 52.4 54.5	1.4	1 1 1
1/ Observed Values Corrected to 14% Moisture Basis			7 7 7								

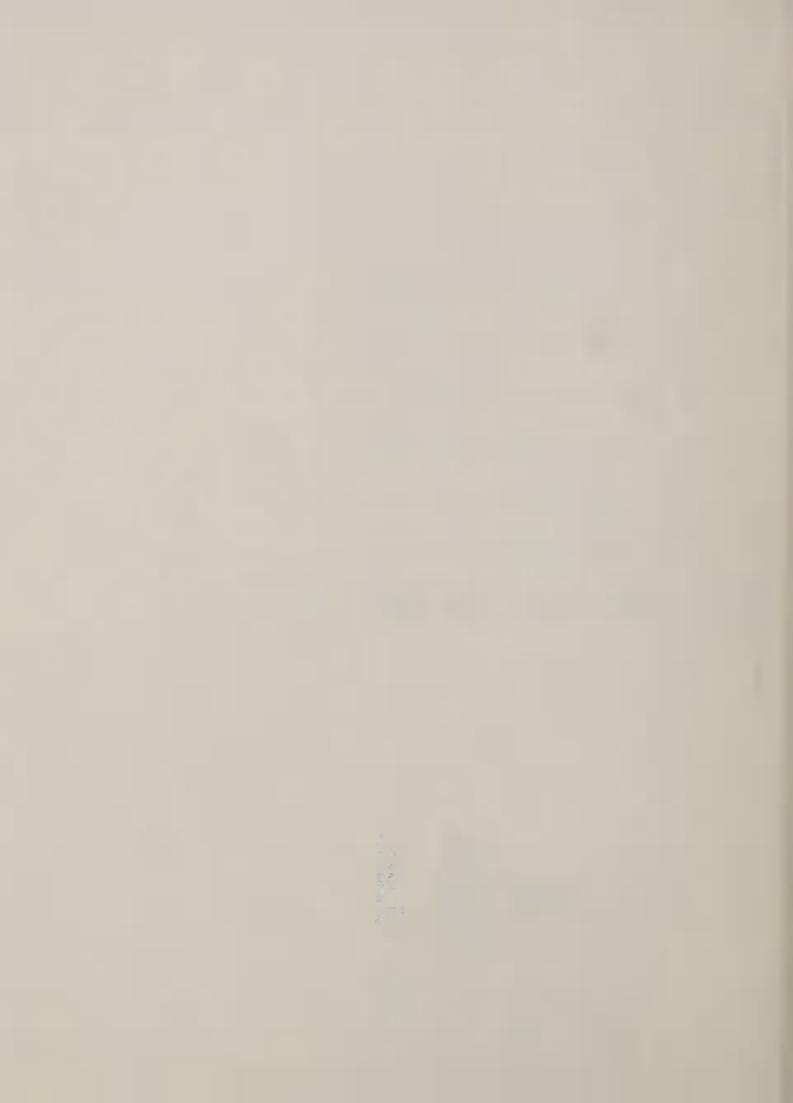
 $\underline{1}/$  Observed Values Corrected to 14% Moisture Basis.  $\underline{3}/$  Absorption at 14% Moisture Corrected to 8% Protein.  $\underline{4}/$  Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.
6/ Promising Overall Quality Characteristics.

PNWGC CROP QUALITY SURVEY

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 13		10, OR, WA	, WA								
VARIETY	IDNO	CLASS	FASH	FPROT	CODI	CAVOL	SCSOR	WITM	NOSCO	LVOL	BCRGR
			1/	1/							
REGION 1 - NORTH IDAHO REGION 2 - SOUTH IDAHO REGION 2 - SOUTH IDAHO REGION 2 - SOUTH IDAHO		SWW SWW HRW HRW	0.42	7.5	8.89	1265	75.0	356	73	840	<i>\$</i>
ON 3 - PALOUSI		SWW	0.39	8.0		1275	0.97	362	72	0101	7
REGION 4 - BIG BEND REGION 5 - WALLA		SWW CLUB HRW HRS SWW	0.40 0.39 0.39 0.42	8.7 1.3 1.7.7 8.2	8.96 9.07 8.14 7.91 8.86	1260	77.081.0	380 382 361	74 75 73	830 985	m 82
REGION 6 - NORTH PENDLETON REGION 7 - COLUMBIA RIVER REGION 7 - COLUMBIA RIVER REGION 8 - WILLAMETTE VALLEY REGION 9 - WATERVILLE		SWW SWW CLUB SWW SWW	0.38 0.40 0.40 0.40	7.2 6.9 5.6 7.1	9.05 9.01 9.29 8.86 9.27	1280 1305 1340 1240 1315	79.0 80.0 82.0 76.0	356 356 351 357 341	73 73 74 74		
REGION 9 - WATERVILLE REGION 10 - HORSE HEAVEN REGION 10 - HORSE HEAVEN REGION 11 - BLUE MOUNTAINS		CLUB SWW CLUB SWW	0.40 0.44 0.41 0.41	6.9	9.20 8.96 9.26 8.89	1315 1290 1310 1250	79.0 76.0 78.0 75.0	361 359 382 374	75		



NURSCO 14		PULLMAN,	, WA							C.F. KONZAK
LABNUM VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE COD	CODIC RMKS
840331 DIRKWIN 840332 OWENS 840333 WAVERLY 840334 EDWALL 840335 POTAM 70/FIELDER	C1017745 C1017904 C1017911 P111477919 WA6916	SWS SWS SWS SWS	57.0 60.2 60.1 57.9	68.4 66.9 72.5 67.5 66.7	0.38 0.32 0.38 0.31	84.1 85.7 89.2 87.4 84.5	10.4 10.2 10.3 9.7	20702	M 9.22 M 9.14 M 8.97 M 9.19	99999
840336 POTAM 70/FIELDER 840337 POTAM 70/FIELDER 840338 POTAM 70/FIELDER 840339 POTAM 70/FIELDER 840340 POTAM 70/FIELDER	WA6918 WA6919 WA6920 WA7073 WA7074	SWS SWS SWS SWS SWS	60.8 60.2 60.2 60.2 60.5	66.5 65.4 65.8 66.0	0.35 0.35 0.35 0.35	83.2 82.1 82.4 83.1	9.9 10.1 10.5	53.4 4 54.8 4 53.4 6 53.8 4 53.7 4	L 9.07 L 8.96 L 8.97 L 9.11	9.06 Q-Milling 8.97 Q-Milling 8.96 Q-Milling 9.12 Q-Milling
840341 K78504/K74129-33/K7806645 HF820055 840342 POTAM 70/(WA6021, BRONS/KOELZ-7941) 840343 K74135/POTAM 70 840344 K74469/POTAM 70 840345 K74469/POTAM 70	6/ WA7183 K7905147 5/ K8005463 5/ K8005861 6/ K8006090	SWS SWS SWS SWS	59.6 61.4 58.3 59.8	68.2 66.6 68.7 68.6 67.4	0.38 0.37 0.31 0.35	83.5 82.4 88.9 87.8 84.9	10.7 9.8 10.4 10.8	54.0 31 53.4 41 54.5 41 55.7 4N	M 9.11 L 9.21 L 9.42 M 9.09	9.19 Q-Milli 9.19 9.47 9.18 9.23
840346 HYSLOP/FIELDER 840347 K74135/POTAM 70 K8005424 840348 K74182/POTAM 70 K8005604 840349 K74129/POTAM 70 840350 K74129/POTAM 70	100172 5/WA7186 5/WA7187 6/K8005300 6/K8005339	SWS SWS SWS SWS SWS	56.5 59.9 61.0 60.8	65.0 68.1 68.5 66.6	0.35 0.32 0.30 0.32	81.7 87.2 89.0 85.6 83.9	9.6 10.9 10.8	52.8 3L 56.0 6M 55.1 4M 54.8 4L 54.3 3M	9.15	9.11 P-Milling 9.24 9.15 9.36 9.10
840351 LIFN*2-N1220/(WA6151, SPRING LUKE MUT 840352 K7400317/POTAM 70 S, 1 840353 K7400315/POTAM 70 S, 34 840354 K7400315/POTAM 70 S, 47 840355 K7400315/POTAM 70 S, 47	5/ K7905631 K8105569 K8105773 K8105773 6/ K8105790	SWS SWS SWS SWS SWS	60.9 59.8 58.6 60.1	69.6 65.4 66.8 68.3 69.2	0.35 0.33 0.35 0.40 0.37	87.2 83.5 83.9 82.4 85.6	10.5 10.5 10.3 10.3	54.7 4M 55.4 3M 54.2 4L 53.0 4L 53.1 2M	9.29 9.25 9.05 9.16	9.33 9.30 Q-Milling 9.06 Q-Milling 9.20 Q-Milling
840356 K7400315/POTAM 70 S,54 840357 K7400315/POTAM 70 S,80 840358 K7400315/POTAM 70 S,126 840359 K7400315/POTAM 70 S,142 840360 K78504/K74129-33//K7806645 K79295-5	K8105794 K8105822 6/K8105870 K8105887 HF820050	SWS SWS SWS SWS SWS	59.8 58.7 60.3 59.5	67.7 66.7 68.3 64.9 67.4	0.37 0.35 0.35 0.36	83.8 83.9 85.5 80.7	2.010.2	54.3 3L 54.7 3L 55.4 2M 54.9 2M 54.8 1M	9.31 9.25 9.21 9.27	9.26 Q-Milling 9.27 Q-Milling 9.27 9.35 P-Milling 9.44 Q-Milling
840361 K78504/K74129-33//K7806645 K79299-20 840362 POTAM 70/FIELDER	HF820064 WA6917	SMS	58.9	64.6 64.7	0.32	83.1	10.3	54.3 2M 54.6 4L	9.15	.18 Q-Millin .02 Q-Millin
1/ Observed Values Corrected to 14% Moisture Basis.	S		5/ Part	icular	V Promi	o puis	l cro	Q. 13 + 1.	4000	

<sup>5/</sup> Particularly Promising Overall Quality Characteristics.
6/ Promising Overall Quality Characteristics. 1/ Observed Values Corrected to 14% Moisture Basis.  $\overline{3}/$  Absorption at 14% Moisture Corrected to 10% Protein. 4/ Observed Values Corrected to 10% Protein.

See Remarks column for deficiencies of those not noted as promising in overall quality characteristics. COMMENTS:

C.F. KONZAK

NURSCO 15

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SOFT		

PULLMAN, WA

LABNUM

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD FASH		MSCOR	FPROT	MSCOR FPROT MABSC MTYPE CODI	PE CODI	CODIC RMKS
						1/		7	3/		4/
840363 K 840364 K 840365 K 840366 K	840363 K77582 K76181/(K75438,CI14482/N68221/3/840364 K77651 K76219/(K76185,LIFN*2-N1220/(WA61840365 K79224-2 K74129-19/100065 840366 K79224-7 K74129-19/100065	K8205095 K8205357 <u>5</u> / K8305002 <u>5</u> / K8305007 <u>5</u> / K8305010 <u>5</u> /	SWS SWS SWS SWS SWS	60.8 59.3 60.7 60.4 60.7	67.0 69.6 70.6 70.5	0.36 0.33 0.32 0.32	83.6 88.9 90.6 90.4	10.5 9.5 4.9 8.9	53.9 3M 53.2 5L 52.9 6L 53.5 2L 54.7 2L	9.12 9.41 9.48 9.46	9.17 Q-milling 9.35 9.45 9.40
840368 K 840369 K 840370 K 840371 K 840371 K	840368 K79224-11 K74129-19/1D0065 840369 K79228-1 K74129-23/WA6395 840370 K79230-9 K74129-38/PAVON S' 840371 K79230-12 K74129-38/PAVON S' 840372 K79291-11 K7705352/WALLADAY	K8305011 <u>5</u> / K8305015 <u>6</u> / K8305035 K8305035	SWS SWS HWS HWS SWS	59.7 60.7 61.5 60.1	70.1 69.3 71.7 69.0 68.5	0.33	89.8 88.6 90.4 87.9	10.4 9.9 10.1 11.1	55.3 4M 553.4 4M 56.3 4M 55.3 7M 54.7 3L	9.25 9.51 8.76 8.90 9.22	9.29 9.50 8.77 P-Cookie, Hard Endo. 9.02 Hard endosperm 9.13
840373 K 840374 K 840375 E	840373 K79322-1 K78542/K74129-49 840374 K78569-4 WS1/FIELDER 840375 EDWALL	K8305068 K8305161 P11477919	SWS SWS SWS	62.8 59.5 59.0	70.8 (67.2 (67.6 (	0.31	91.8 83.8 87.1	9.6	54.2 4L 54.2 4M 52.6 2M	9.42	9.38 9.33 Q-milling score 9.29
1/ Observ 3/ Absorp 4/ Observ	$\frac{1}{2}$ Observed Values Corrected to 14% Moisture Basis. $\frac{3}{2}$ Absorption at 14% Moisture Corrected to 10% Protein. $\frac{4}{2}$ Observed Values Corrected to 10% Protein.			5/ Part 6/ Prom	icularly	/ Promi	sing Ov Quality	erall Chara	5/ Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.	racteris	tics.

COMMENTS: Several of these selections have very promising overall quality.

Q = Questionable; P = Poor

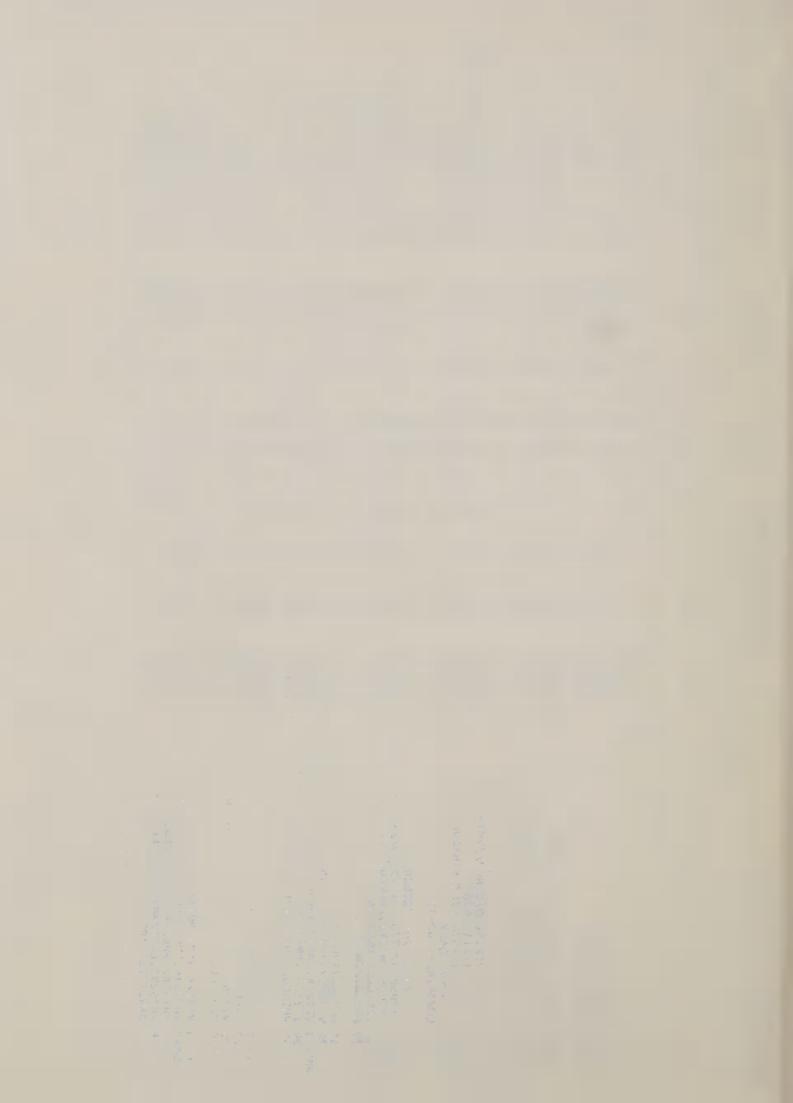
NURSCO 16		RITZVILLE,	E, WA							C.J. PETERSON
LABNUM	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE COD	I CODIC RMKS
840376 DAWS 840377 LEWJAIN 840378 HILL 81 840379 BARBEE 840380 FARO	C1017419 C1017909 C1017954 C1017417 C1017590	SWW SWW SWW CLUB	61.8 61.4 61.6 59.9 60.0	70.4 70.2 73.1 68.8	0.40 0.39 0.41 0.39 0.40	85.0 85.8 88.4 83.6	8.6	52.8 3L 52.7 3L 51.5 2L 49.9 1L 51.2 21	9.06	11 8.97 16 9.17 19 9.40 14 9.32 15 0.20
	C1017951 C1015376 6/VH082310 5/VH082182 VH075298	CLUB SWW SWW SWW SWW	60.8 61.3 58.2 60.6	72.3 69.1 70.3 71.8 69.1	W44W4	80108-		00000	2 20020	00000
840386 VH1566437//VH71517,CI14484/PI94540 840387 STEPHENS/CERCO 840388 VH72636,WA4996/GNS/101//CERCO 840389 LUKE/IC72 840390 WA6470/SEL 2142	6/VH078119 VH079121 VH079309 VH080214 VH080368	SWW SWW HWW SWW SWW	62.5 60.2 59.1 60.8 61.4	70.8 69.0 66.5 66.1 67.4	0.39 0.41 0.44 0.42	86.4 82.6 78.9 78.3 83.1	7.8 9.2 10.0 7.4	51.3 2L 51.7 2M 57.9 4M 54.4 3M 51.9 2L	00000	9.16 9.220-Milling 8.63P-FYLED&CO 9.05P-FYELD
840391 VH74482, VH68266/LUKE//DAWS 840392 77 WHITE SEEDED CERCO MUTANT 840393 761WS190/DAWS 840394 VH75491, LUKE/BR702412//RPB6138/3/DAWS 840395 VH75491, LUKE/BR702412//RPB6138/3/DAWS	VH080412 VH080833 VH081371 VH081479 6/VH081482	MMS MMS MMS MMS	59.9 56.6 60.0 59.8 61.1	65.4 65.5 66.2 67.6	0.45 0.45 0.40 0.40	78.4 75.9 79.3 81.4	9.3 8.0 8.1 8.4	0.0.0.00	- wo wc	9.13P- 8.98P- 8.96P- 8.76P-
840396 V75029, LUKE/PI178210//V75025 840397 VH74554, LUKE/VH67375//LUKE 840398 VH74554, LUKE/VH67375//CERCO 840399 VH74554, LUKE/VH67375//VPM-1/MOISSON 840400 VH74554, LUKE/VH67375//VPM-1/MOISSON	VH081496 VH082252 VH082254 6/VH082257	MMS SWM SWM SWM SWM	60.8 57.5 55.7 60.2 59.2	69.1 68.5 69.9 69.3	0.40 0.41 0.45 0.40	83.4 83.1 79.3 84.5	20895	33.54.0	5 000m	00
	VH082271 VH082397 VJ080156 VJ081009 VJ082027	HWW SWW SWW SWW	61.9 59.0 60.1 59.6 60.5	65.4 66.6 66.9 69.2 67.7	0.37 0.41 0.39 0.40 0.39	81.3 80.6 81.2 83.5 82.7	88.57 88.57 88.57	56.1 6L 58.0 4M 53.2 3M 53.5 3M 54.5 5L	98	000
840406 VD76692/CERCO 840407 V76515, WA6242/VJ74544//VH75459 840408 CERCO 840409 V72005/PAHA 840410 V75153, WA6145/PAHA//WA6145	VJ082029 6/VJ082215 C1015922 5/10078181 6/10081108	HWW SWW HRW SWW SWW	60.9 62.3 60.1 62.7 60.3	69.2 70.2 65.7 71.0	0.46 0.40 0.38 0.37 0.43	80.6 84.9 81.1 87.7 83.4	88.00.77.00.00.77.00.00.00.00.00.00.00.00.	57.9 6L 53.8 4L 59.5 4M 0.5 1L	8.59 9.15 8.54 9.71	.55 .12 .64 .70
1/ Observed Values Corrected to 14% Moisture Basis	•		5/ Part	rticularl	ly Promi	sina	Overall	0.13+V CF		

<sup>5/</sup> Particularly Promising Overall Quality Characteristics.
6/ Promising Overall Quality Characteristics.

 $<sup>\</sup>overline{3}/$  Absorption at 14% Moisture Corrected to 9% Protein.  $\overline{4}/$  Observed Values Corrected to 9% Protein.

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NURSCO 16			RITZVILLE,	-E, WA							C.J. PETERSON
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC MTYPE	CODI	CODIC RMKS
84Q411 TYEE/BARBEE 84Q412 MENDEL/CERCO 84Q413 HEIMA/WA6241 84Q414 761WS052/DAWS 84Q415 CERCO/NORDA	/9	10082154 VH082078 VH082079 VH082098 VH082132	SWW SWW HWW SWW HWW	58.8 59.1 60.1 62.4	68.6 65.1 69.6 67.7	0.39 0.42 0.40 0.41	83.9 77.5 84.2 81.8 82.3	7.0 10.6 9.3 9.9	51.3 1L 56.4 3M 54.5 3M 61.0 6L 52.0 2M	9.47 8.86 9.15 9.26	9.25Q-MSCOR 9.04P-MSCOR 9.18 8.13Hard - P-Cookie 9.36 P.MSCOR
840416 V76506, WA6240/WA6145//LUKE 840417 HILL 81/WA6242 840418 VH74554, LUKE/VH67375//CERCO 840419 VH75542, N701423/LUKE//ID101 840420 VONA/CERCO	45//LUKE 6/ 75//CERCO KE//1D101 6/	VH082211 VH082237 VH082253 VH082277 VH082361	SWW HWW SWW SWW SRW	59.9 61.8 58.5 58.8 51.7	70.1 68.9 68.7 69.0	0.38 0.39 0.42 0.41	86.0 83.9 82.1 83.1	- <del>-</del> 20 - 2	5.9	27.0%1	
840421 V76199, P1235230/CERCO//VH76489 840422 P1119333/P1173438 840423 OR680073//N7406203, SPRAGUE/LUKE 840424 OR680073/DAWS 840425 LEWJAIN/AMIGO-13	RCO//VH76489 ,SPRAGUE/LUKE	VH082398 VH082516 VH083003 VH083009	HWW HRW SWW SWW SWW	58.7 59.5 56.5 60.0	65.9 64.7 67.9 69.6 69.5	0.43 0.42 0.47 0.43	78.7 1 77.8 1 77.8 8 82.2 84.1	9.5	57.2 3M 58.2 2H 53.3 2M 51.4 3L 52.9 3L	8.49 8.25 9.25 9.00	62 47 47 99 99
840426 VH78294,V72052/CERCO//WA6470 840427 V77058/3/V77060,VH75459//VPM- 840428 V77096,VH76489/CERCO//LEWJAIN 840429 PEDIGREE UNKNOWN 840430 LEWJAIN/ABE	VH78294, V72052/CERCO//WA6470 V77058/3/V77060, VH75459//VPM-1/MOISSON V77096, VH76489/CERCO//LEWJAIN PEDIGREE UNKNOWN LEWJAIN/ABE	VH083083 VH083099 VH083105 VH083110 VH083124	MAS WWS SWW SWW SWW SWW	59.2 58.9 57.8 58.3	68.8 66.1 66.9	0.42 0.39 0.44 0.47	82.2 83.7 77.1 73.9	9.1.50.00.00.00.00.00.00.00.00.00.00.00.00.	3.22.3	L00/-	780081
840431 OR680073/CERCO 840432 V77058/3/V77060,VH75459//VPM-1MOISSON 840433 V77254,OASIS/WA6362//FARO 840434 V77226,VPM-1/MOISSON//CERCO/3/LUKE 840435 VH74482,VH68266/LUKE//VH77637	75459//VPM-1M01SSON 5/ 2//FARO 3N//CERCO/3/LUKE KE//VH77637	VH083157 VH083165 VH083165 VH083194 VH083223	MMS MMS MMS MMS	60.2 61.6 59.3 58.6 60.1	69.1 (67.0 (71.1 (66.8 (67.5 (	0.40 8 0.40 8 0.40 8 0.39 8	2.29	0.088.0 0.00.0 0.00.0 0.00.0	2.8 6L 3.3 3L 1.4 2L 4.6 3L 1.4 2L	8.79 9.05 9.39 9.30	22982
840436 WA6362/AVON 840437 OR680073/WA6471 -840438 LUKE 840439 V77096,VH76489/CERCO//LEWJAIN 840440 PEDIGREE UNKNOWN	6/ 6/ 00//LEWJAIN	\$083224 VH083257 C1014586 VH083275 VH083299	MMS MMS MMS SMM	60.4 61.1 60.8 57.2 58.0	70.8 0 70.3 0 70.5 0 64.2 0	.40 8 .42 8 .43 8 .42 7	5.6 4.1 6.0 4.2	0.000	2.4 2L 0.3 1M 2.8 2L 2.3 4M 4.0 4M	9.30 9.41 8.92 8.89	32 42 81 20 P-FYEL 94 P-FYEL
840441 V77226, VPM-1MOISSON//CERCO/3/WA6242 840442 VH75314, LUKE/VH68310//OR67237 840443 VH74482, VH68266/LUKE//LEWJAIN 840444 VH75298, LUKE/BR704434//LEWJAIN 840445 DAWS//76317REA, VPM-1/MOISSON	1//CERCO/3/WA6242 10//OR67237 KE//LEWJAIN 134//LEWJAIN 11/MOISSON	VH083309 VH083328 VH083344 VH083354 VH083364	HWW SWW SWW SWW	59.8 60.4 6.1.1 60.9 57.4	68.1 0 67.2 0 67.7 0 66.3 0 63.1 0	.41 8 .44 7 .39 8 .42 7	2.2 88.7 9.6 88.8 4.5	25-26	6.1 1M 3.4 4M 3.0 4L 2.7 6L	8.65 8 9.10 9 9.46 9 9.21 9 9.36 9	



NURSCO	16	~	RITZVILLE,	E, WA							C.J. PETERSON
LABNUM	VARIETY	1 DNO	CLASS	TWT	FYELD FASH	FASH 1/	MSCOR	FPROT 1/	MABSC MTYPE	E C0D1	CODIC RMKS
054048 84048 84048 84048 84049 84049	V77033, VJ74435//VPM-1/MOISSON/3/LJN V77812, ZG4240/73(771W)//WA6242/3/LJN VH78250, V72023/CERCO//DAWS VH77353, 14484/BR704452//RPB6120/3/LUKE VH744482, VH68266/LUKE//VH77392	VH083405 VH083431 VH083449 VH0834546/	SWW SWW SWW SWW SWW SWW	59.1 60.1 59.4 59.8	68.4 64.8 66.1 69.5	0.38 0.40 0.42 0.40	84.2 78.2 79.5 84.3	9.8 8.8 8.0 7.9	53.1 2M 52.6 3M 55.6 6L 53.3 4L 53.9 4L	9.31 9.15 8.57 9.30 9.34	9.40 Q-Milling 9.13 P-FYELD 8.49 P-FYELD (Hard) 9.26 9.22
840451 840452 840453 840453 840455	VH78079,VH70292/CERCO//LUKE V77254,OASIS/WA6362//WA6242 GREER/PECK A/WA4765//53-23 V77024,TYEE/BARBEE//FARO	VH083470 VH083572 VH083802 VH083816 ID083183	MMS MMS MMS MMS MMS	58.6 59.8 60.8 59.2 60.4	66.7 66.7 66.9 68.3	0.40 0.40 0.42 0.43	80.3 80.7 80.8 79.7	8.3 7.9 7.1	52.0 3L 52.9 3L 52.9 5L 57.6 5L 51.9 1L	9.24 9.24 9.12 8.56 9.32	8.94 P-FYELD 9.14 P-FYELD 9.00 P-FYELD 8.41 P-FYELD&CODI 9.15 Q-MSCOR
840456 V 840457 L 840458 V 840459 F 840460 V	VD77216,101/0D/GNS/O//VD71276/3/FARO LEWJAIN//VH75263,NORCO/LUKE V77018,FARO/BABEE//WA6581 FARO//VD74233,VA68220/BARBEE VH74482,VH68266/LUKE//WA6242	10083227 VH083461 100835746/ 100836546/ VH083293	MMS MMS MMS MMS	57.8 57.9 61.4 58.8 59.9	69.0 70.8 70.5 70.9 64.5	0.42 0.44 0.40 0.42 0.39	82.4 83.5 85.3 84.9	8 2 2 3 4 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	53.1 4L 53.3 3L 50.9 2L 51.1 2L 53.0 4L	9.27 9.25 9.25 9.25	9.09 Q-MSCOR 9.23 Q-MSCOR 9.08 9.20 9.18 P-Milling
840461 840462 840463 840464 840464	V77226,VPM-1/MOISSON//CERCO/3/DAWS OR7493/WA6242 V77812,ZG4240/73(771W)//WA6242/3/LJN V474482,VH68266/LUKE//VH77283 V77030,VJ74435/CERCO//LEWJAIN	VH0832975/ VH083303 VH083462 VH083343 VH0833476/	SWW SWW SWW SWW SWW	58.8 60.9 60.6 57.1 61.1	71.0 (64.9 (65.2 (69.6 (	0.34 0.45 0.39 0.40	90.1 75.0 79.4 73.4	08000 00000 00000	22.6 4M 14.9 4M 15.5 7M 15.6 6L 6.8 3M	9.20 8.90 9.11 9.06	9.19 8.97 P-Milling 9.11 P-Milling 9.04 P-Milling
840467 V 840467 V 840468 L	VH74482, VH68266/LUKE//WA6242 VH75298, LUKE/BR704434//VH77283 LUKE/VH67375	VH0833526/ VH083404 VH0068136/	SWW	60.4 58.7 58.1	68.9 0 66.4 0 71.3 0	.39	83.8	7.9 5	3.6 4L 3.5 2L 1.2 3L	9.31	9.19 9.18 P-Milling 9.13
O.L. S. P. S. C.											

COMMENTS: See Remarks column for deficiencies of selections not footnoted as promising in overall quality.

Q = Questionable; P = Poor

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 17

PUW, LIND, R.S., DVNPRT

LABNUM	IDNO	CLASS	TWT	FYELD FA	FASH MSCOR	п.	MA	PE CODI	CODIC	RMK
						7	3/		4/	
840469 WAVERLY PULLMAN 840470 WAVERLY LIND 840471 WAVERLY ROYAL SLOPE 840472 WAVERLY DAVENPORT 840473 EDWALL PULLMAN	C1017911 C1017911 C1017911 C1017911 P1477919	SWS SWS SWS SWS	58.0 59.4 57.9 61.0	65.7 0.66.3 0.69.6 0.63.7 0.	34 83.3 35 84.4 41 79.5 35 87.2 28 84.1	11.6	57.4 5H 56.7 2M 55.7 2L 53.5 3L 57.0 3M	8.61 8.99 9.06 9.36	8.79 9.08 8.97 9.24 9.16	
840475 EDWALL LIND 840475 EDWALL ROYAL SLOPE 840476 EDWALL DAVENPORT 840477 POTAM 70/FIELDER PULLMAN 840478 POTAM 70/FIELDER LIND	P1477919 P1477919 P1477919 WA6916 WA6916	SWS SWS SWS SWS	57.4 60.0 59.6 59.9 61.0	67.0 0.68.5 0.64.8 0.66.4 0.	34 84.5 39 82.3 35 86.2 35 81.4 36 82.0	9.88	55.2 2M 55.7 2L 52.9 2L 54.2 6M 53.2 3M	9.15 9.34 9.40 8.91 8.75	9.14 9.22 9.22 9.00 8.76	
840479 POTAM 70/FIELDER ROYAL SLOPE 840480 POTAM 70/FIELDER DAVENPORT 840481 POTAM 70/FIELDER PULLMAN 840482 POTAM 70/FIELDER LIND 840483 POTAM 70/FIELDER ROYAL SLOPE	WA6916 WA6916 WA6918 WA6918 ·	SWS SWS SWS SWS	61.7 62.1 60.1 60.7 61.7	65.6 0.65.5 0.665.5 0.666.4 0.	38 80.4 37 84.3 36 81.7 37 82.2 39 81.0	9.4 8.6 10.0 10.3	54.4 3L 54.8 4L 55.6 6M 55.3 6M	8.94 9.21 9.02 8.97 9.25	8.87 9.06 9.02 9.01	
840484 POTAM 70/FIELDER DAVENPORT 840485 POTAM 70/FIELDER PULLMAN 840486 POTAM 70/FIELDER LIND 840487 POTAM 70/FIELDER ROYAL SLOPE 840488 POTAM 70/FIELDER DAVENPORT	WA6918 WA6919 WA6919 WA6919 WA6919	SWS SWS SWS SWS SWS	60.5 59.9 61.7 60.3	67.2 0. 65.1 0. 65.8 0. 65.1 0.	38 82.3 34 82.3 38 80.7 39 79.1 38 81.2	9.00 0.00 0.05 8.88	52.6 5L 54.0 3L 53.5 3M 54.6 3L 53.4 5L	9.32 9.11 9.16 9.15	9.21 9.07 8.83 9.03	
840489 POTAM 70/FIELDER PULLMAN 840490 POTAM 70/FIELDER LIND 840491 POTAM 70/FIELDER ROYAL SLOPE 840492 POTAM 70/FIELDER DAVENPORT 840493 POTAM 70/FIELDER PULLMAN	WA7073 WA7073 WA7073 WA7073 WA7074	SWS SWS SWS SWS SWS	59.1 61.1 61.5 61.9 59.9	65.0 0.66.9 0.66.6 0.68.9 0.64.2 0.	36 80.9 37 82.9 38 81.9 37 85.2 37 79.4	10.8 10.2 9.3 9.1	55.5 4M 54.7 3M 53.7 3L 52.8 5L 54.8 6M	8.71 8.96 9.31 9.15	8.79 8.98 9.24 9.05	
840494 POTAM 70/FIELDER LIND 840495 POTAM 70/FIELDER ROYAL SLOPE 840496 POTAM 70/FIELDER DAVENPORT	MA7074 WA7074 WA7074	SWS SWS SWS	60.9 61.9 62.1	64.9 0.7 66.2 0.1 67.6 0.1	38 79.6 40 79.9 38 82.9	10.3	54.7 4M 53.8 3L 52.4 5L	8.87 9.07 8.99	8.91 9.00 8.88	
	Waverly Edwall	SMS	59.1	67.3 0.3	FOUR LOCATION 36 83.6 10		AVERAGE	9.01	9.02	

COMMENTS: WA6816 and WA6818 are questionable in milling properties. WA6819 and WA7074 low enough in flour yield to be marginal/unacceptable.

8.92 Q-MSCOR 9.10 Q-MSCOR 8.98 P-MSCOR

9.19

9.26 8,95

54.2 55.2

> 7.6 7.6

0.37 0.38

66.3

SMS

66.4

8.09 61.1

SMS

WA6918

66.7

58.7

SMS

Edwall WA6916

84.3 82.2 81.8

54.6

8.96 P-MSCOR

9.02

9.05 9.03 8.89

53.9 54.2 53.9

9.4 6.6

80.8 82.7 80.5

0.37

9.59

9.09

SMS

WA6919

6.99 65.7

0.38 0.37

61.2 6.09

SWS

WA7073 6/

WA7074

9.14

4/ Observed Values Corrected to 10% Protein.

<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 10% Protein.

<sup>5/</sup> Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics

Promising Overall Quality Characteristics.

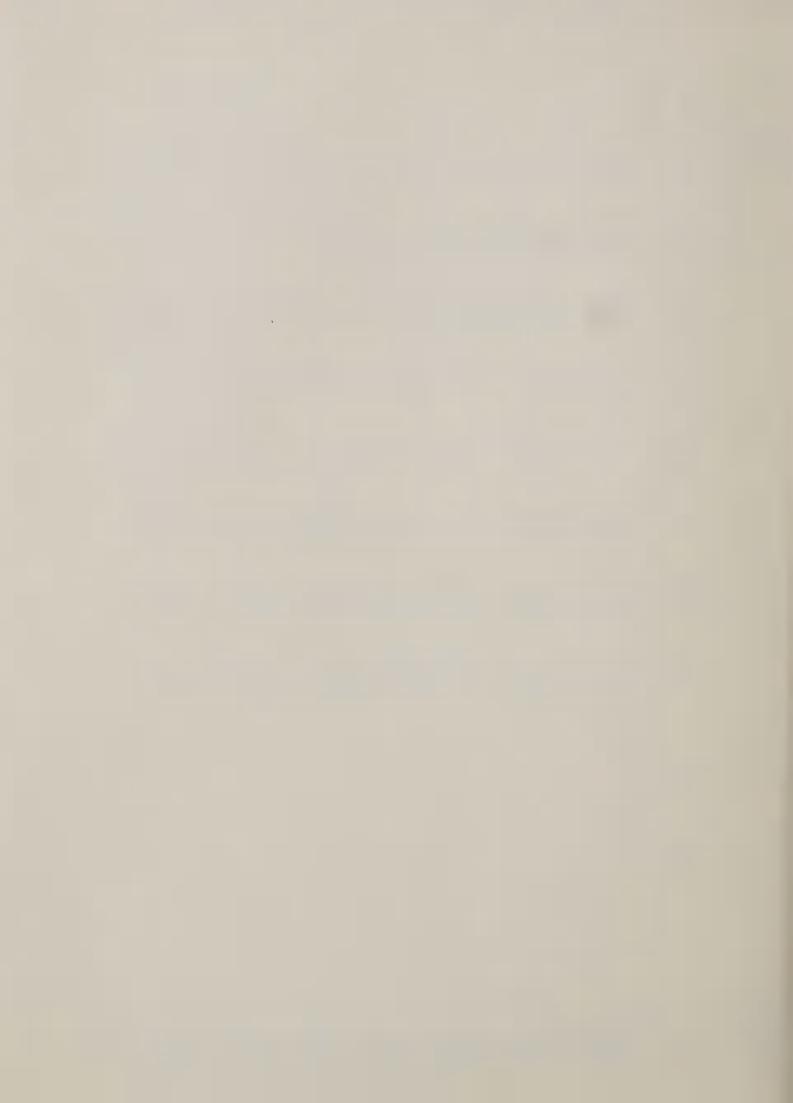
PAGF 1		
	>	
	SALINITY STUDY	

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 18			RIVERSIDE	, CA					J.D. RHG	RHOADES
LABNUM	VARIETY	ONGI	CLASS	TWI	FYELD	FASH 1/	MSCOR	F PROT	MABSC 3/	MIYPE
840498 840499 840500 840500		1-C1 2-Ca1 3-CA1 4-Ca2 5-C2	HERS ERS ERS ERS	63.3 65.8 63.7 63.6 64.3	68.2 68.3 68.6 68.3	0.42 0.42 0.41 0.42	77.2 77.2 78.2 77.0	10.9	62.6 62.9 61.7 62.3 61.3	H H H H H H H H H H H H H H H H H H H
840503 840503 840504 840505		6-cA2 7-cA3 8-c3 9-ca3	EEEEE S S S S S S	63.6 63.8 63.8 64.2	67.9 68.9 69.9 69.5	0.42 0.41 0.43 0.44 0.44	76.7 78.6 81.1 79.1	11.4 11.5 10.5 10.7	61.6 61.3 65.0 64.9	
840507 840508 840509 840510		11-C4 12-Ca4 13-C5 14-Ca5 15-cA5	HERSS SS SS SS SS SS SS SS SS SS SS SS SS	63.8 63.4 63.4 64.0	65.6 66.1 69.1 67.9	0.44 0.43 0.43 0.43	73.2 74.4 78.3 74.0	10.5 10.6 10.2 10.6	67.8 65.8 66.0 65.5 66.8	H999
840513 840513 840514 840515 840516		16-Ca6 17-C6 18-CA6 19-CA1	EEEES EEEES EEEEE	63.7 63.4 63.8 63.8	69.4 70.6 71.5 70.8	0.44 0.44 0.43 0.43	79.9 80.6 82.4 81.5	10.5	64.3 64.4 64.3 63.7 64.4	333333 33333 33333 33333
840518 840519 840520 840521		21-A1 22-A2 23-C2 24-CA2 25-G3	ERSS S S S S S S S S S S S S S S S S S S	64.1 63.7 63.6 63.9 64.1	69.1 67.9 68.1 68.2 71.2	0.42 0.42 0.42 0.42 0.41	79.8 77.7 78.3 78.2 82.6	10.5 2.01 10.5 2.01 0.05	64.3 64.7 65.1 63.4 64.0	35983 35986 36983 36983 36983 36983 36983 36983 36983 36983 36983 36983 3698 3698
840523 840524 840524 840525		26-CA3 27-A3 28-C4 29-A4 30-CA4	ERS ERS ERS ERS ERS	64.6 63.7 63.9 63.9 64.1	70.4 69.8 70.3 69.3	0.42 0.41 0.41 0.42 0.42	81.6 80.9 82.1 79.9	0.9	63.9 64.0 63.4 64.2 65.7	HHHH999
840527 840528 840529 840530 840531		31-CA5 32-A5 33-C5 34-C6 35-A6	ERS ERS ERS ERS ERS	64.0 63.5 63.9 64.0 63.7	67.5 70.0 69.4 69.1	0.42 0.43 0.40 0.40	77.4 80.9 81.3 81.4 78.7	10.8 11.2 11.4	65.1 63.7 64.4 64.4 63.7	66 H H H 66 H
1/ Observed Values Corrected t 3/ Absorption at 14% Moisture	Moisture Corrected to 11% Protein.	in.		5/ Part 6/ Prom	Particularly Prom Promising Overall	; ·	sing Overall Quality Quality Characteristi	ty Characteri stics.	eristics.	

 $<sup>\</sup>underline{3}/$  Absorption at 14% Moisture Corrected to 11% Protein.  $\underline{4}/$  Observed Values Corrected to 11% Protein.

NID, PAGE 1	RMKS							
CONTD.	BCRGR	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	コペキムの	C0C20	92299	7 × 9 9 1	77304	L 2 4 4 L
	LV0LC 4/	896 904 928 898 903	850 894 831 799 814	771 850 900 795 819	806 890 930 774 809	778 741 822 761 866	806 805 825 769 735	754 837 813 780 780
	10/1	8890 885 940 910 940	875 925 800 780 795	740 825 850 770 800	775 840 930 780 815	735 710 810 730 860	800 805 850 775 735	760 825 825 805 780
	MTIME	5.7.4 5.08 5.08	245.00 045.00 6.00	VVVVV 8000338	000000 00000	23.50.5 24.00.5 24.00.5	4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5.25 7.77
	BABSC 3/	64.3 65.6 65.4 66.0 65.0	65.3 65.0 68.7 70.6	69.5 69.5 68.7 71.2	68.0 69.1 69.0 65.4 68.1	68.0 68.4 67.7	67.6 67.7 67.1 67.9 69.4	68.8 67.4 68.1 68.1 67.4
STUDY, CA	BABS	64.2 65.3 65.6 66.2 65.6	65.7 65.5 68.2 68.4 70.3	69.0 69.1 67.9 71.2	67.5 68.3 69.0 65.5 68.2	67.3 67.9 68.6 66.6 67.6	67.79 67.79 68.09 68.09	68.9 67.2 68.3 68.5 67.4
SALINITY	CLASS	HRS HRS HRS HRS	HRSS SS SS SS SS	HRSS HRSS HRSS HRSS S	E E E E E E E E E E E E E E E E E E E	HRS HRS HRS HRS	HRS HRS HRS HRS	H H H H S S S S S S S S S S S S S S S S
	IDNO	1-C1 2-Ca1 3-CA1 4-Ga2 5-C2	6-cA2 7-cA3 8-C3 9-Ca3	11-Ch 12-Ca4 13-C5 14-Ca5 15-cA5	16-Ca6 17-C6 18-CA6 19-CA1	21-A1 22-A2 23-C2 24-CA2 25-C3	26-CA3 27-A3 28-C4 29-A4 30-CA4	31-CA5 32-A5 33-C5 31-C6 35-A6
QUALITY LAB.	VAR1ETY							
USDA, SEA AR WESTFRN WHEAT QU PULLMAN, WA.	LABNUM	840497 840499 840500 840501	840502 840503 840504 840505 840506	840507 840508 840509 840511	840512 840513 840514 840515	840517 840518 840519 840520	84(0522 84(0524 84(0525 84(0526	84(0528 84(0528 84(0529 84(0530 84(0531



USDA, STA AR WESTERN WHAT QUALITY LAB. PULLMAN, WA.		SALIMITY STUDY	STUDY						PAGF 2
NURSCO 18		RIVERSIDE, CA	. CA					J.D. RHOADES	ADES
LABRUM	ONGI	CLAS\$	IMI	LYELD	FASH	MSCOR	FPROT	MABSC	MIYPE
					7		71	3/	
840532	36-CA6	IIRS	0.169	64.0 67.3	0.43	0.41 77.3	10.9	10.9 66.7 611	119

	1 - 6	1 - 6	1 - 6	
	ပ	Ca	CA	
FIRST FIELD SUMMARY	SAMPLE #1 - #18 TREATMENT CODE:			

LVOL/FPROT RESPONSE							79,18							76.45							79.27
BCRGR	٣	2	4	7	5	4	4.2	~	~	5	9	9	9	4.8	2	4	2	8	9	4	4.5
LVOL	890	940	800	740	850	840	843.3	840	910	780	825	770	775	824.6	940	875	925	795	800	930	877.6
FPROT	10.9	11.6	10.5	10.5	10.2	10.2	10.65	10.7	11.6	10.7	10.6	9.01	10.5	10.78	11.2	11.4	11.5	10.7	10.6	11.0	11.07
MSCOR	77.2	78.4	81.1	73.2	78.3	80.6	78.13	77.2	78.4	79.1	74.4	740	79.9	71.17	78.2	7.97	78.6	9.91	74.0	82.4	27.77
FYELD	68.2	0.69	6.69	9.59	69.1	70.6	68.73						69.4	16.79	9.89	6.79	6.89	68.1	65.5	71.5	68.42
3000 3000	C-1	2	3	4	2	9	×	Cal	2	3	7	5	9	·×	CAI	2	3	4	5	9	·×



			KIVEKSIDE, CA	c CA					J.D. RHOADES	ADES
LABNUM	VARIETY	1 DNO	CLASS	BABS	BABSC 3/	BABSC MIIME LVOL	LVOL	LVOLC 4/	BCRGR	RMA
840532		36-CA6	HRS	70.3	10.4	9.4	160	992	9	
			SECOND FIELD SUMMARY	D SUMMARY						

LVOL/FPROT	RESPONSE							74.34
	BCRGR	9	9	4	~	4	4	4.5
	LVOL	815	810	860	850	825	805	827.5 4.5
	FPROT	11.1	10.8	10.9	11.4	11.2	11.4	
	MSCOR	82.3	78.3	82.6	82.1	81.3	81.4	81,3
	FYELD						69.1	69.75 81.3
	CODE	C-1	2	2	4	5	9	i×
OUTREATMENT CODE:								
00# - 6	9 -	0 4	o 1					
שייורנב #וש - #.	0 8	5 <	-					

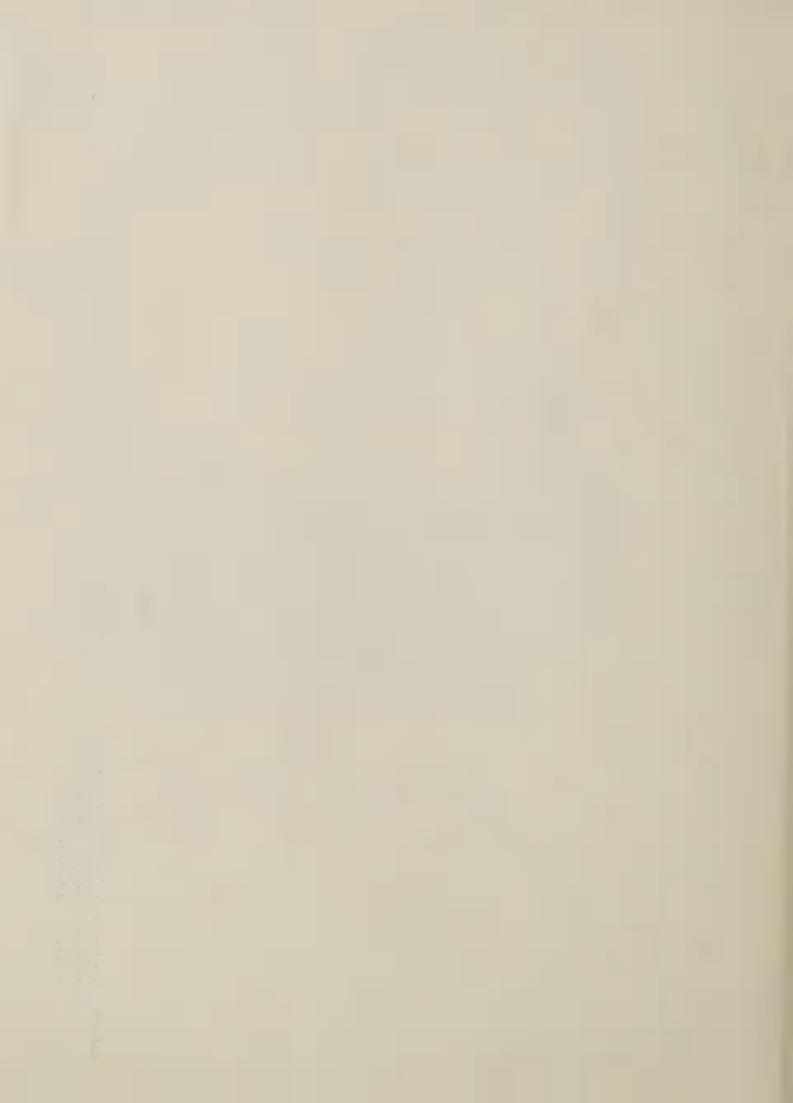
SAMPLE #19 - #36 TREATMENT CODE:

74.34						
4.5	9	9	4	7	7	9
827.5	780	730	800	735	760	760
11,13	11.1	10.5	10.9	11.0	11.11	10.9
81,3	81.5	78.2	81.6	79.1	77.4	77.3
69.75	8.07	68.2	70.4	68.7	67.5	67.3
ı×	CA1	2	~	4	5	9

69.74						1
9	7	7	9	7	5	7
760.83	735	710	805	775	825	780
10.91	10.3	10.5	11.0	11.11	10.8	11.0
79.18	8.64	7.77	80.9	79.9	80.9	78.7
68.82	1.69	6.79	8.69	69.3	0.07	68.2
×	A-1	2	2	4	5	9

x 69.05 79.65 10.78 771.67 6.5 71.58

the summary tables. ANOV may be helpful to determine some degree of significants. A careful analysis of the plot design vs these The variability within replications (6) for some of the major factors is wider than the differences between treatments as seen in milling and baking factors may relate good or poor milling and baking to particular locations within the plot. COMMENTS:



LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	لبا
						1/		7	3/		
840533	WA6823 C117689/WARED, K74102-118 NZSEL.11 WA7190	WA7190	6/ HRS	57.9	70.4	.3	6.	12.3	3.	3Н	
	MARTOR	C101/691	HRS	60.7	70.1	. 3	5.	11.1	2.	5H	
	MRN/TRB 66/3/T700/2*AN//061 12/ ADSC: 4	C101/903		60.8	0.69	. 3	-	11.4	3.	Н9	
	MAK()30/CRANF 543-10//PRODAX/3/BORAH	2/2001	6/ HKS	62.6	70.1	0.32	89.5	12.0	63.2	5H	
		112001		0.10	08.0	٠.	9	13.1	3	5H	
	ABERDEEN SELECTION	100278	6/IIRS	61.0	α		_	-	-	Υ	
	A71372S-15-3/A71388S-1-2	100287		4 69			کا -			119	
840540	WALDRON/ERA/5/BEZ-1//C113438/BURT/	100288	6/HRS	61.5		٠		- c	? r	10	
840541	A641S-B-11-5-1/A6722S-12-1	100289	HRS	61.7	67 1	76.0	0.7.0	17.1	01.3	HO	
840542	MRN/TBR 66//100107/3/100153	1002001	SVH/9	60.1	- 0	4	÷ c	٠,		12 H	
		277021		1 . 20	•		,	`1		4H	
	BORAH//BORAH/BB S' RESELECTION	100291	HRS	61.1				-		ИН	
	100064/100042//100203	100292	5/HRS	60.3				• ~		מל	
	ABERDEEN SELECTION	100293		60.3				·	6	711	
	MPC 770928	ORS8417		59.1				•		7 H	
840547	MPC 770302	ORS8418	HRS	62.6	67.3	0.32	86.6	11.6	62.2	TH TH	
840548	WA7184/K7205061	14A718E	odn	c	0				,		
	WA6824 BORAH/C117689 K74127-339 NZSEL OU	WA7101	5/HPC	0.70	07.0	0.32	89.2	11.9	60.5	3.	
	WA6825 BORAH/C117689 K74127-474 NZSFL OR	WA 7100	S/HPS		2	? (	'n,	v.		5H	
		WA7103	. \		00	٠,		٠, د		2H	
		101771		, ,	7	· ·	χ,	3		311	
	MEIEII 02 1101 - 20 - 34 - BE MESEL, 00	WAT 194	HKS		7	٠,		3		3H	

<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 12% Protein. 4/ Observed Values Corrected to 12% Protein.

5/ Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.

C.F. KONZAK

LIND, WA

USDA, SFA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 19

					DABSC	ME	LVUL	LVULU	BCRGR RMKS
					3/			4/	
840536 MRN/TBR 66/3/ 840537 WA6030/CRANE,	WAG823 CI17689/WARED, K74102-118 NZSEL.11 WAMPUM MCKAY MRN/TBR 66/3/TZPP/3*AN//B61-136 ABSEL.1 WAG030/CRANE, 543-10//PRODAX/3/BORAH	WA7190 C1017691 C1017903 1D0272 1D0277	HRS HRS HRS HRS	65.2 62.4 63.1 64.9 65.9	64.9 63.3 63.7 64.9 64.9	4.3 4.3 4.2	1075 1085 1125 1075	1056 1141 1162 1075	00000
840538 ABERDEEN SELECTION 840539 A71372S-15-3/A71388S-1-2 840540 WALDRON/ERA/5/BEZ-1//C113 840541 A641S-B-11-5-1/A6722S-12-3 840542 MRN/TBR 66//ID0107/3/ID0	ABERDEEN SELECTION A71372S-15-3/A71388S-1-2 WALDRON/ERA/5/BEZ-1//C113438/BURT/ A641S-B-11-5-1/A6722S-12-1 MRN/TBR 66//ID0107/3/ID0153	100278 100287 100288 100289	HRS HRS HRS	63.2 66.9 63.1 63.9 64.0	63.4 67.6 63.0 64.4 63.6	33.01.03.0	1040 910 1010 1000	1052 953 1004 1031	2 2P-FYELD&LVOL 2Q-LVOL 4Q-BCRGR 2
840543 BORAH//BORAH/BB S' RE 840544 1D0064/1D0042//1D0203 840545 ABERDEEN SELECTION 840546 MPC 770928 840547 MPC 770302	BORAH//BORAH/BB S' RESELECTION 1D0064/1D0042//1D0203 ABERDEEN SELECTION MPC 770928 MPC 770302	100291 100292 100293 0RS8417 0RS8418	HRS HRS HRS	63.5 63.5 63.4 61.7 63.5	63.5 622.5 63.2 63.2	3.7 3.7 3.4	1000 1160 1160 940 1035	1025 1098 1098 971 1060	3Q-LVOL&BCRGR  2 8P-FYELD,LVOL&BCRGR 6P-BCRGR
840548 WA7184/K7205061 840549 WA6824 BORAH/CI 840550 WA6825 BORAH/CI 840551 WA6825 BORAH/CI 840552 NZ1ZHP82 V761-2	17689, K74127-339 NZSEL.04 17689, K74127-474 NZSEL.08 17689, K74127-474 NZSEL.12 8-J4-B2 NZSEL.08	WA7185 WA7191 WA7192 WA7193 WA7194	HRS HRS HRS	62.1 66.7 67.0 66.2 64.3	62.2 66.2 65.3 65.0 63.1	33.7 33.1 3.0	975 1110 1125 1120 1080	981 1079 1020 1046 1006	5P-LVOL&BCRGR 10-LVOL 16-EYELD,LVOL&BCRGR

COMMENTS: The seed quality (T.W. and protein) of this nursery was good. As noted in "Remarks" a few had poor milling properties and loaf volume below Wampum and McKay. Several are very promising in HRS wheat quality.

P = Poor; Q = Questionable

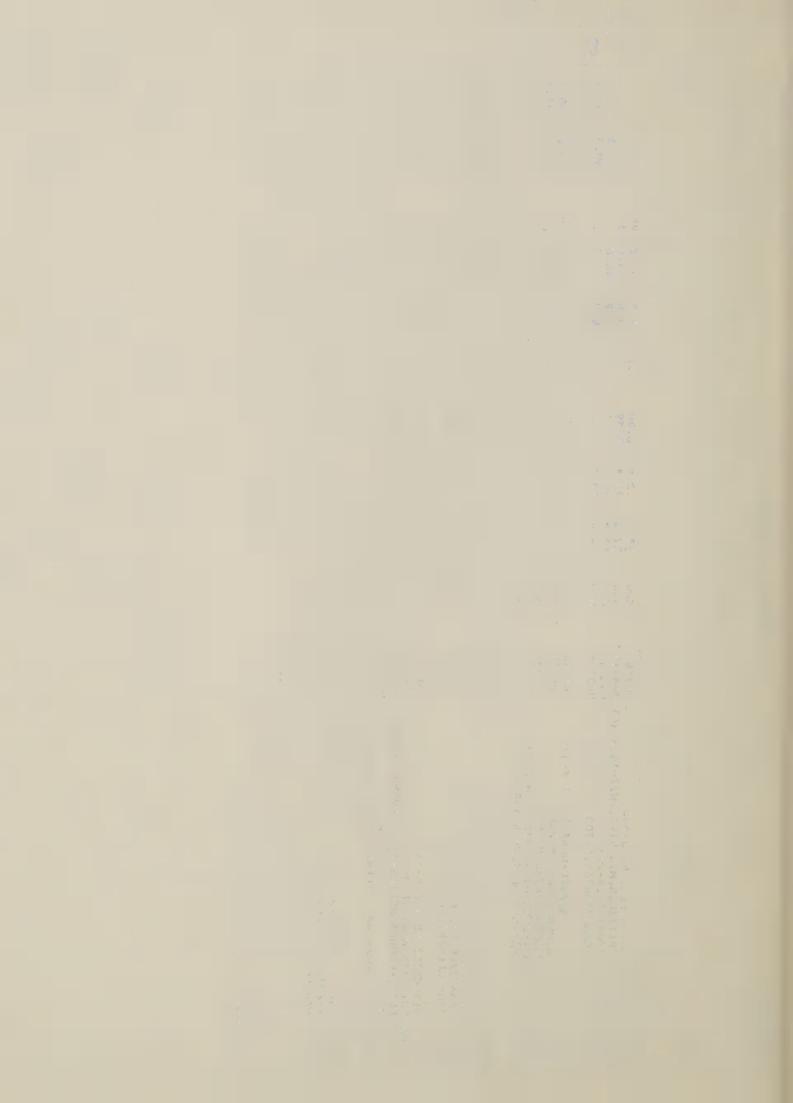
C.R. ROHDE

MORO, OR

NURSCO 20

												7
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS	BABSC
						1		1/	3/			3/
840553 840554 840555 840555 840557	STEPHENS HYSLOP/OR6739, SEL, 744, J-644 STEPHENS/P1173438(M76-479), PW77-16. K-363 REW/CAMA//OR7413, K-271 STEPHENS/CAMA//OR765. K-300	C1017596 OR774 OR8311 5/ OR8233	SWW SWW SWW HRW HRW	58.6 58.8 57.6 60.4 59.4	71.4 70.4 73.8 69.9	0.40 0.40 0.39 0.40	81.1 80.7 86.3 83.3 80.3	9.8	54.6 55.8 53.4 56.0 57.8	44 43 33 33 33 34	57.4	57.2
840558 840559 840560 840561 840562	CERCO/ROMANIAN//STEPHENS.423-2.K-310 F60213-76.MEXCB78241.M-248 F60212-76.MEXCB78240.M-247 GK-FERIODI-2/NE701134.730713.MCB669.M-28 I-607/CAMA//SENCOR CLUB.K-198	0R8314 0R8315 0R8316 0R8317 0R8218	HRW HRW HRW SRW	60.1 61.7 60.0 60.7 60.8	69.5 69.4 68.1 68.9 68.5	0.41 0.39 0.37 0.38	80.7 82.2 80.8 81.7	9.9	60.0 56.4 55.6 60.1 55.8	23M 33M 8L	62.0 59.0 58.2 61.8	61.7 58.1 57.3 61.8
840563 840564 840565 840566 840567	HILL 81 CERCO/ROMANIAN//STEPHENS.K-233 SEL.101/CAMA//1-372/CAMA.K-40 CAMA/3/EGIN//166910/ELGIN.K-7 0705 CLEMENT.WWPN6.M-37	C1017954 OR8224 OR8258 6/ OR8265 OR8324	SWW SRW HRW HRW SRW	61.1 57.6 59.3 59.1 58.0	72.9 68.5 71.5 70.8 68.6	0.38 0.40 0.41 0.42 0.36	86.6 79.2 84.0 83.3	8.7 8.5 10.1 10.0	55.3 58.1 58.6 52.4	31 41 33 43 11	60.9	59.8
840568 840569 840570 840571 840571	DISPONENT.CB-178.M-139 CHIEFTAN.MCB1478.M-172 BEZ1, PRODUCIORE(128-1)/AU FUN59 71.MCB S MC D/ROMANIAN//STEPHENS.540.7.K-84	OR8325 OR8326 OR8329 C1017419 OR8332	HRW SRW HRW SWW SWW	56.4 57.0 61.6 60.1	68.9 68.9 70.0 69.5 68.8	0.43 0.39 0.40 0.39	79.2 77.4 83.0 79.7	10.3 9.7 10.1 8.7	55.7 53.1 55.6 55.1	887 27 4 4	58.7	57.4
840573 840574 840575 840575	FARO 65-116-70-MBW-2/RIEB F1//65-116-70-MBW 1-607/CAMA//OR7464.165-2.K-147 WANSER	C1017590 OR8337 OR8341 6/ C1013844	CLUB SWW SWW HRW	60.0 59.9 59.8 62.8	74.0 69.4 71.9 72.9	0.38 0.38 0.38 0.37	88.2 79.5 85.6 89.5	8.1 9.3 9.9	51.4 54.7 53.8 59.3	1L 3M 8M	61.9	61.0
1/ Obse 3/ Abso 4/ Obse	$1/$ Observed Values Corrected to 14% Moisture Basis. $\overline{3}/$ Absorption at 14% Moisture Corrected to 9% Protein. $\overline{4}/$ Observed Values Corrected to 9% Protein.	•		5/ Par 6/ Pro	Particularly Promising Promising Overall Quali	y Promis	ly Promising Overall Quality Cha Overall Quality Characteristics.	all Quality haracteristi	ity Char istics.	Characteristics cs.	ics.	

<sup>6/</sup> Promising Overall Quality Characteristics.



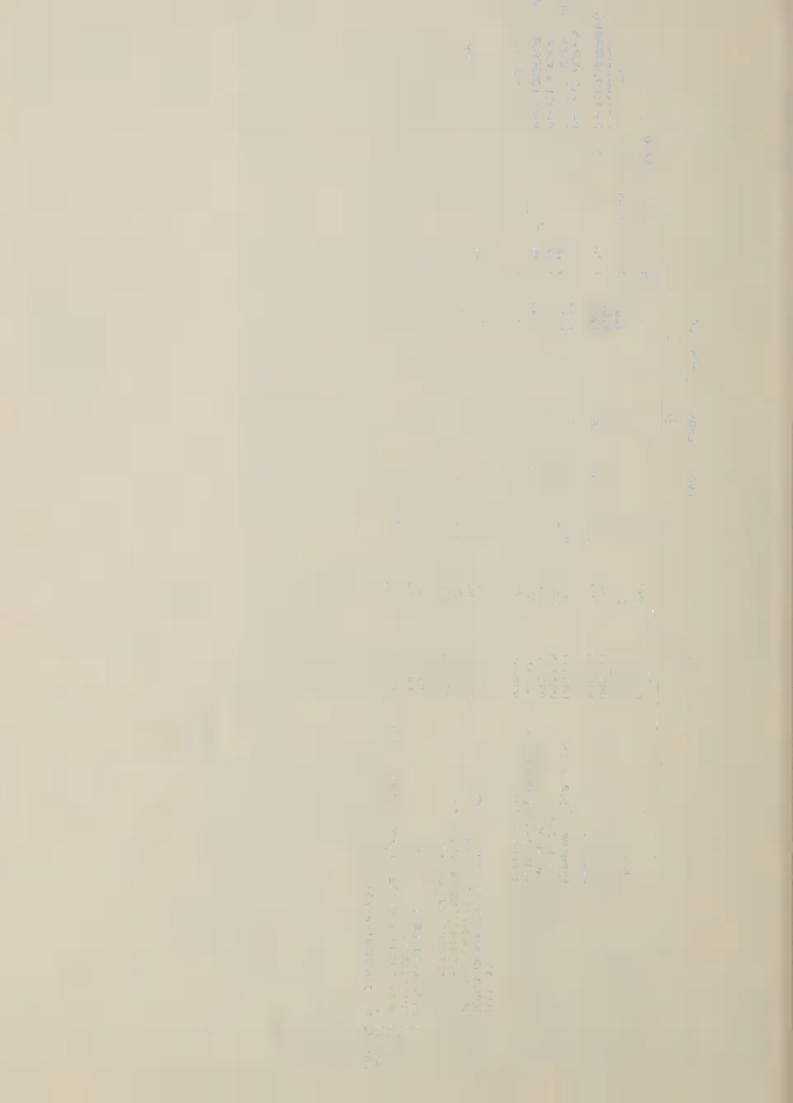
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LABNUM	VARIETY	ONGI	CLASS	MTIME	LVOL	LVOLC BCRGR	BCRGR	1000	CODIC	CAVOL	SCSOR RMKS
						4/			4/		
840553 840554 840555 840556 840557	STEPHENS HYSLOP/OR6739.SEL.744.J-644 STEPHENS/P1173438(M76-479).PW77-16.K-363 REW/CAMA//OR7413.K-271 STEPHENS/CAMA//OR765.K-300	C1017596 0R774 0R8311 0R8233	SWW SWW SWW HRW HRW	3.2	780	768	9	8.67 8.74 9.04 8.02 7.69	8.69 8.72 9.04 8.04 7.70	1315 1285 1305	82.0 79.0 Sl. Low FYELD 80.0 P-FYELD&BCRGR P-FYELD,BCRGR&LVOL
840558 840559 840560 840561 840562	CERCO/ROMANIAN//STEPHENS.423-2.K-310 F60213-76.MEXCB78241.M-248 F60212-76.MEXCB78240.M-247 GK-FERTODI-2/NE701134.730713.MCB669.M-28 I-607/CAMA//SENCOR CLUB.K-198	OR8314 OR8315 OR8316 OR8317	HRW HRW HRW SRW	7.30	670 665 785 735	651 609 729 735	8676	7.52 7.71 7.69 7.44 8.47	7.55 7.78 7.76 7.44 8.44	1260	P-FYELD, BCRGR&LVOL P-FYELD, BCRGR&LVOL P-FYELD&BCRGR P-FYELD&BCRGR 77.0 Q-FYELD, CODI, CAVOL
840563 840564 840565 840566 840567	HILL 81 CERCO/ROMANIAN//STEPHENS.K-233 SEL.101/CAMA//I-372/CAMA.K-40 CAMA/3/EGIN//166910/ELGIN.K-7 0705 CLEMENT.WWPN6.M-37	C1017954 OR8224 OR8258 OR8265	SWW SRW HRW HRW SRW	3.4	815	747	96	9.09 8.11 8.02 7.69	9.06 8.06 8.11 7.77 8.92	1305	80.0 74.0 P-FYELD (RED) P-LVOL, BCRGR
840568 840569 840570 840571 840572	DISPONENT.CB-178.M-139 CHIEFTAN.MCB1478.M-172 BEZ1, PRODUCIORE(128-1)/AU FUN59 71.MCB S MC D/ROMANIAN//STEPHENS.540.7.K-84	OR8325 OR8326 OR8329 C1017419 OR8332	HRW SRW HRW SWW SWW	5.1	775	694	6 6	7.72 8.51 7.81 8.50 8.84	7.83 8.58 7.90 8.47	1260 1225 1260	P-FYELD&BCRGR 76.0 P-FYELD P-MIME,LVOL&BCRGR 74.0 75.0 P-FYELD
840573 840574 840575 840575	FARO 65-116-70-MBW-2/RIEB F1//65-116-70-MBW 1-607/CAMA//OR7464.165-2.K-147 WANSER	C1017590 OR8337 OR8341 C1013844	CLUB SWW SWW HRW	4.7	775	713	#	8.81 8.76 8.87 8.07	8.74 8.80 8.83 8.15		P-FYELD

was abnormal in baking characteristics for its protein level. See "Remarks" for major deficiencies of those not footnoted as promising COMMENTS: Note several of these selections are soft red wheats. Most have poor milling properties. The HRW were compared with Wanser, which in overall quality.

S1. = Slightly; P = Poor; Q = Questionable



USDA, SFA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

	MTYPE							
ROHDE	Ψ	21 21 81 81	11 81 21 21	11 22 22 21	81 81 51 81	81 31 21 51	31.	51 61 81 21
C.R. R	MABSC 3/	52.8 52.6 53.1 52.5 51.8	51.1 52.7 52.8 52.8	51.4 51.7 60.1 55.0 55.1	54.5 58.1 52.4 56.8 59.6	61.1 56.0 56.3 56.4 54.0	51.3 58.6 50.8 52.4 53.0	54.7 56.4 55.6 61.9
	FPROT 1/	7.4 6.6 6.3 7.4	7.1 6.4 7.5 7.5	6.6 7.0 8.7 7.5	7.2 7.9 7.9 6.9	7.5 7.7 6.3 7.5	7.4 6.8 7.2 7.2	8.1 7.6 6.4 7.1
	MSCOR	87.6 83.0 79.9 86.5	86.8 85.4 83.1 86.6	88.2 78.5 79.2 80.8 85.7	82.7 79.6 85.7 87.3 80.1	72.5 81.0 74.7 82.8 85.5	90.4 74.5 84.0 85.6 89.9	83.6 79.0 84.1 72.4
	FASH 1/	0.38 0.34 0.34 0.35	0.37 0.35 0.38 0.36	0.36 0.36 0.43 0.34 0.35	0.35 0.40 0.38 0.34 0.40	0.39 0.38 0.39 0.36	0.33 0.39 0.37 0.34 0.33	0.36 0.40 0.37 0.41
	FYELD	72.9 70.3 67.8 71.9 69.3	72.1 71.4 71.1 72.5	73.2 67.4 69.0 68.1 70.8	69.4 67.6 72.2 71.3 68.2	63.8 68.0 64.7 70.3 71.8	73.4 64.5 70.8 72.1 73.6	69.3 68.4 71.1 64.4
OR	TWT	60.3 61.2 61.3 60.5	61.2 59.5 60.0 60.3	60.0 59.2 61.4 58.6 60.5	60.4 60.5 59.9 61.7 59.8	62.3 58.4 60.9 60.9 60.9	58.8 61.8 57.6 57.6 58.2	61.2 61.9 58.6 61.5
PENDLETON,	CLASS	MMS MMS MMS	CLUB CLUB SWW SWW SWW	CLUB SWW HRW SRW SWW	SWW HWW SWW HWW HWW	HWW HRW SWW SRW	SWW SWW SWW	HRW HRW SRW HRW
<b>L</b> .	I DNO	C1017596 C1017419 C1017725 C1017954 C1017909	C1017951 C1017773 6/0R7996 <u>6</u> / WA6912 0D/ OWW74220F	C1017590 0R8270 0RCR8413 FW771595	ORCW8418 ORCW8422 ORCW8423 ORCW8423	ORCW8425 ORCR8412 OR834 WA6302 OR8312	2/0R836 0R838 2/0R839 2/0R8310 0R83115/	OR8233 OR8238 OR8313 OR8314
21	VARIETY	STEPHENS DAWS GREER HILL 81 LEWJAIN	CREW 1YEE HYS/YAYLA//WA4995/3/CERCO.W-1980 BUR/C15923/NGS.VH074575 HYS/YAYLA//63-112-66-4/3/HYS/SF.F.4/NE	FARO MCD/ROMANIAN//OR7161.K-83	75/2	UNKNOWN.1-607.832 LUKE MUTANT.8-163 AMIGO/STEPHENS.8-643	STEPHENS/P1173438(M76-479)PW77-16/B-750 \(\begin{array}{c} \begin{array}{c} \begin{array}{c	REW/CAMA//OR74131.K-271 STEPHENS/CAMA//OR765.K-300 STEPHENS/CAMA//OR765.414-1.K-307 CERCO/ROMANIAN//STEPHENS.423-2.K-310
NURSCO	LABNUM	840577 840578 840579 840580	840582 840583 840584 840584 840585	840587 840588 840589 840590 840591	840592 840593 840594 840594 840595	840597 840598 840599 840600	840602 840603 840604 840605 840605	840608 840608 840609 840610

 $<sup>\</sup>underline{5}/$  Particularly Promising Overall Quality Characteristics.  $\underline{6}/$  Promising Overall Quality Characteristics.

<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 7% Protein, 4/ Observed Values Corrected to 7% Protein.

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LABNUM	VARIETY	IDNO	CLASS	1000	COD1C	CAVOL	SCSOR	WIIN	NOSCO	RMKS
840577 840578 840579 840580 840581	STEPHENS DAWS GREER HILL 81 I FWJAIN	C1017596 C1017419 C1017725 C1017954 C1017909	MMS MMS MMS MMS	8.98 8.60 8.81 8.91	9.03 8.56 8.74 8.95	1260 1220 1290 1315	76.0 71.0 78.0 81.0 82.0			
840582 840583 840584 840584 840585	CRFW 1YEE HYS/YAYLA//WA4995/3/CERCO.W-1980 BUR/C15923/NGS.VH074575 HYS/YAYLA//63-112-66-4/3/HYS/SF.F.4/NDD/	C1017951 C1017773 0R7996 WA6912 OWW74220F	CLUB SWW SWW SWW	9.19 9.30 9.25 8.85	9.19 9.26 9.24 8.90	1300 1330 1320 1335 1225	78.0 81.0 81.0 81.0			Q-FYELD&SCSOR
840587 840588 840589 840590 840591	FARO MCD/ROMANIAN//OR7161.K-83	C1017590 0R8270 0RCR8413 FW771595 ORCW8416	CLUB SWW HRW SRW SWW	9.24 8.77 7.62 8.59 9.05	9.21 8.77 7.76 8.64 9.06	1305 1200 1215 1250	80.0 73.0 73.0 73.0			P-FYELD&SCSOR P-FYELD(Hard) P-FYELD,Q-CODI(SRW) Q-SCSOR
840592 840593 840594 840595 840596		ORCW8417 ORCW8418 ORCW8422 ORCW8423	SWW HWW SWW HWW	8.94 7.87 8.82 8.25 7.96	8.96 7.94 8.92 8.26 7.95	1245	76.0		4 41	P-FYELD(Hard) P-CODI(Hard) Hard
840597 840598 840599 840600	UNKNOWN.1-607.B32 LUKE MUTANT.B-163 AMIGO/STEPHENS.B-643	ORCW8425 ORCR8412 OR834 WA6302 OR8312	HWW HRW HWW SWW SRW	7.85 8.22 7.95 8.96 9.07	7.89 8.38 8.01 8.89	1280 1315	77.0		TII W	Hard Hard Hard Soft Red(Excellent)
840602 840603 840604 840605 840605	STEPHENS/P1173438(M76-479)PW77-16/B-750 HYSLOP/CERCO.B-312 67-237-534/178383.M-76-324//WA4826.B-641 STEPHENS/P1173438(M76-479)PW77-16.B-756 STEPHENS/P1173438(M76-479).PW77-16.K-363	OR836 OR838 OR839 OR8310 OR8311	MMS MMS MMS MMS	9.15 8.11 8.94 9.49 9.29	9.19 8.10 9.05 9.52	1355 1290 1385 1355	84.0 79.0 84.0 84.0		<u>a</u> .	P-FYELD(Hard)
840607 840608 840609 840610	REW/CAMA//OR74131.K-271 STEPHENS/CAMA//OR765.K-300 STEPHENS/CAMA//OR765.414-1.K-307 CERCO/ROMANIAN//STEPHENS.423-2.K-310	OR8233 OR8238 OR8313 OR8314	HRW HRW SRW HRW	8.29 8.04 9.14 7.65	8.38 8.09 9.07 7.66	1315	81.0		QI ÃÛ	Q-FYELD(Hard) Hard Red P-FYELD(Hard)

COMMENTS: Note the wheat class; several of these selections are hard whites or hard reds. Others are soft red. No sponge cakes were baked on the selections which were found to be hard by NIR analysis and confirmed by cookie bakes, and because the protein was so low no breads were baked either. Selection OR836 is the outstanding selection for overall quality.

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LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC
		Videbourter-tel streetsbergeringsbetaterengenen en keer ke				1/	And Andrews of the Control of the Co	71	3/
840611 STEPHENS		C1017596	SIM	0.09	72.9	0.40	88.6		51.4
		B-12	SWW	57.1	66.3	0.39	80.7		54.4
	-66-4/3/REW.J-381	6/ B-68	SIMM	60.2	69.7	0.38	85.7	6.3	52.3
	USECO/SPRAGUE, J=112/	B-215	SWA	0.10	70.3	0.37	80.8		25.20
840615 HYSLOP/YA	HYSLUP/YAYLA//63-112-66-4/3/UK/U65.J-1 5 B-126/	B-12612/	MMS	61.5	12.8	0.38	89.9		49.6
840616 HYSLOP/CE	HYSI OP/CERCO.J-1691	B-307	HWM		65.7				
840617 HYSLOP/CE	HYSLOP/CERCO.J-1699	B-310	MMS		68.0				
	HYSLOP/CERCO.J-1711	B-314	HVM	63.3	65.8	0.39	80.8	6.5	57.8
		C1017419	MMS		9.69				
840620 RBS/11YS.C	RBS/HYS.C588-5E-03W5.CB78 6/	6/8-457	SWN		69.2				
		60.7	2 1 1 2					,	
8110622 67-237-53	HTSLUF/TATEA//WA4995/105012:F=700 67-03/-634/178383 M76-306/MA6926 F-20/3	2 0-6105/	MMC	0.03	200.9	٠,		1.0	
	01-631-731/170303;1470-364//WA4060;1-60/3 54077783-044-10-11-04 D-165	5 0-0402/ 6/0-856	CLAL	0.00	70.6	٠,		6.7	
		H-35	ANII ANII	61.6	0.07	0.37	20.00	200	55. - 0
		C1017954	SWW	60.5	71.6			0.4	
840626 HYSLOP/OR		5/11-143	MMS			. 3	9.		
840627 CERCO/SPR	CERCO/SPRAGUE.J-1129	H-216	111/1/			33	6.		
	HYSLOP/YAYLA//63-112-66-4/3/0R69118.J-15	H-163	MMS			. 3	8		
	HYSLOP/YAYLA//63-112-66-4/3/OR7065.J-160	H-279	MMS	6.09	9.89	0.36	85.5	6.3	53.2
840630 HYSLOP/YA	VYLA//63-122-66-4/3/0R7065.J-161	H-281 <u>0</u> /	MAS			. 3	9		
840631 HYSLOP/YA	HYSLOP/YAYLA//63-112-66-4/3/0R7065.J-163	11-286	HIMM	60.8	67.1	0.40	_	6.0	
	HYSLOP/CERCO, J-1696	H-308	HWH	61.4	64.4	0.42	~	6.0	
		C1017590	CLUB	59.1	71.6	0.39	87.7	5.5	54.3
840634 68-33//MC	68-33//MCD/TAC.OWW71144-1-03E4.CB77.F-29 H-456	11-456	SHW	59.3	9.19	0.35	7	6.5	
1/ Observed Values	1/ Observed Values Corrected to 14% Moisture Basis.			5/ Partic	ularly Promis	sing Overall	5/ Particularly Promising Overall Quality Characteristics	acteristics.	

 $\overline{5}/$  Particularly Promising Overall Quality Character  $\underline{6}/$  Promising Overall Quality Characteristics.

 $\overline{3}/$  Absorption at 14% Moisture Corrected to 7% Protein.  $\overline{4}/$  Observed Values Corrected to 7% Protein.

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LABNUM	VARIETY	IDNO	CLASS	MIYPE	BABS	TAOL	CODI	CODIC RM	RMKS
840611 840612 840613 840614 840614	STEPHENS HYSLOP/CERCO J-37 HYSLOP, YAYLA//63-112-66-4/3/REW. J-381 CLRCO/SPRAGUE. J-1127 HYSLOP/YAYLA//63-112-66-4/3/0R7065. J-1 5	C1017596 B-12 B-68 B-215 B-1267	AVAS AVAS AVAS AVAS	7 2 3 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2			9.29 9.20 9.20 9.25 9.44	9.28 9.16 P-FYELD 9.17 9.13 9.55	
840616 840617 840618 840619 840620	HYSLOP/CERCO. J-1691 HYSLOP/CERCO. J-1699 HYSLOP/CERCO. J-1711 DAWS RBS/HYS. C588-5E-03W5. CB78	B-307 B-310 B-314 C1017419 B-457	HWW SWW SWW SWW SWW	25 17 17 17			8.36 9.01 8.47 8.77	8.34 Hard, P-FYELD 8.97 Q-FYELD&CODI 8.43 Hard, P-FYELD 9.40	ELD OJ ELD
840621 840622 840623 840624 840624	HYSLOP/YAYLA//WA4995/1D5012.F-700 67-237-53H/178383.M76-324//WA4826.F-20 3 SWD/0683-04W-1P-1H-0H.D-165 UNKNOWN.1-607.J-165	B-507 B-640 B-856 H-35 C1017954	SWW SWW SWW HWW SWW	7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.			9.17 9.32 9.26 9.75	9.14 Some Ques, FYELD 9.36 9.23 8.72 Hard 9.06	FYELE
840626 840627 840628 840629 840630	HYSL OP/OR6739. J-737 CERCO/SPRAGUE. J-1129 HYSL OP/YAYLA//63-112-66-4/3/OR69118. J-15 HYSL OP/YAYLA//63-112-66-4/3/OR7065. J-160 HYSL OP/YAYLA//63-122-66-4/3/OR7065. J-161	H-2143 H-216 H-279 H-281	MMS MMS MMS MMS MMS	12227			9.24 9.16 9.12 8.92 9.01	9.18 9.05 P-FYELD 8.85 Q-FYELD&CODI 8.94 Q-CODI	IQ
840631 840632 840633 840634	HYSLOP/YAYLA//63-112-66-4/3/OR7065.J-163 HYSLOP/CERCO.J-1696 FARO 68-33//MCD/TAC.OWW71144-1-03E4.CB77.F-29	H-286 H-308 C1017590 H-456	HWW HWA CI UB SWW	55 11 11			8.96 8.14 9.46 9.11	8.88 P-FYELD 8.06 P-FYELD&CODI(Hard 9.30 9.06 P-FYELD	DI(Har

COMMENTS: Selections B-1267, B-640, and H-143 are noteworthy in milling properties. Several other selections footnoted have good overall promise. Note that several should be classified as hard white wheats.

P = Poor; Q = Questionable

PAGE 1	HDE	MIYPE	######################################	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	88 80 70 70 70 70 70 70 70 70 70 70 70 70 70
	C.R. ROHDE	MABSC 3/	59.4 57.8 58.0 60.0 56.9	55.7 56.1 57.0 53.8 55.3	56.1 57.6 56.9 58.7 56.0
		F PROT	4.9 9.0 9.0 7.9 9.8	8.0.5 8.0.5 8.0.5 9.00 9.00	9.9 7.7 8.9 8.8
		MSCOR	81.2 85.8 83.2 81.5	77.8 77.4 81.1 80.1 74.9	81.1 81.0 83.3 81.2 84.0
		rasii 1/	0.38 0.38 0.37 0.37	0.35 0.39 0.37 0.35	0.39 0.42 0.40 0.41 0.36
		LYELD	67.9 69.5 66.2 67.6 67.6	60.4 62.0 64.5 62.3 58.5	65.4 66.7 68.2 66.6 66.8
R WIILAF	., OR	TWI	60.0 61.0 63.9 62.8 60.5	60.6 60.0 59.9 58.2	60.1 61.8 59.5 60.0 60.0
HARD RED WINTER WILAF	MORO, PENDIL,	CLASS	ASHI ASHI ASHI ASHI ASHI	SRW HRW HRW SRW SRW	HRW HRW HRW HRW HRW
. HARD	-	ONOI	6/ C1017772 C1017727 C1017727	0R792 B-458 B-518 B-483 B-443	6/8-516 8-891 8-1206 8-1210 C1013844
QUALITY LAB.		VARIETY	LL,	TRTUBER / LANCER SWO 730902F - 1H-2H-0P, CB89 SUNDANCE / VH 70 74, F - 788 CARTBOU/DIPLOMAT, F - 556 CARTBOU/DIPLOMAT, F - 189	VARKA/VH70774, F-774 CNO/TNTA/HN7.MLXCB-78451, D-333 CAMA/3/LGIN//166910/ELGIN.107-7.K-7 OWW70134-3W4//NCD/178383.111-2.K-8 WANSFRPLNDLETON
USDA, SLA AR WESTIRN WHEAT C PULLMAN, VA.	NURSCO 23	I ABNUM	840635 HRAY-26 840636 FSN-B-2 840637 HATTON 840638 WESTON 840639 WENREDGE	840640 TRTUBERT/TANCER 840641 SW07309021-1H-1 840642 SUNDANCE/VH707 840643 CARTBOU/DIPLOM 840644 CARTBOU/DIPLOM	840645 VARKA/VH 840646 CNO/TNTA 840648 CAMA/3/1 840649 OW/70134 840650 WANSER -

1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 9% Protein. 4/ Observed Values Corrected to 9% Protein.

 $\underline{5}/$  Particularly Promising Overall Quality Characteristics.  $\underline{6}/$  Promising Overall Quality Characteristics.

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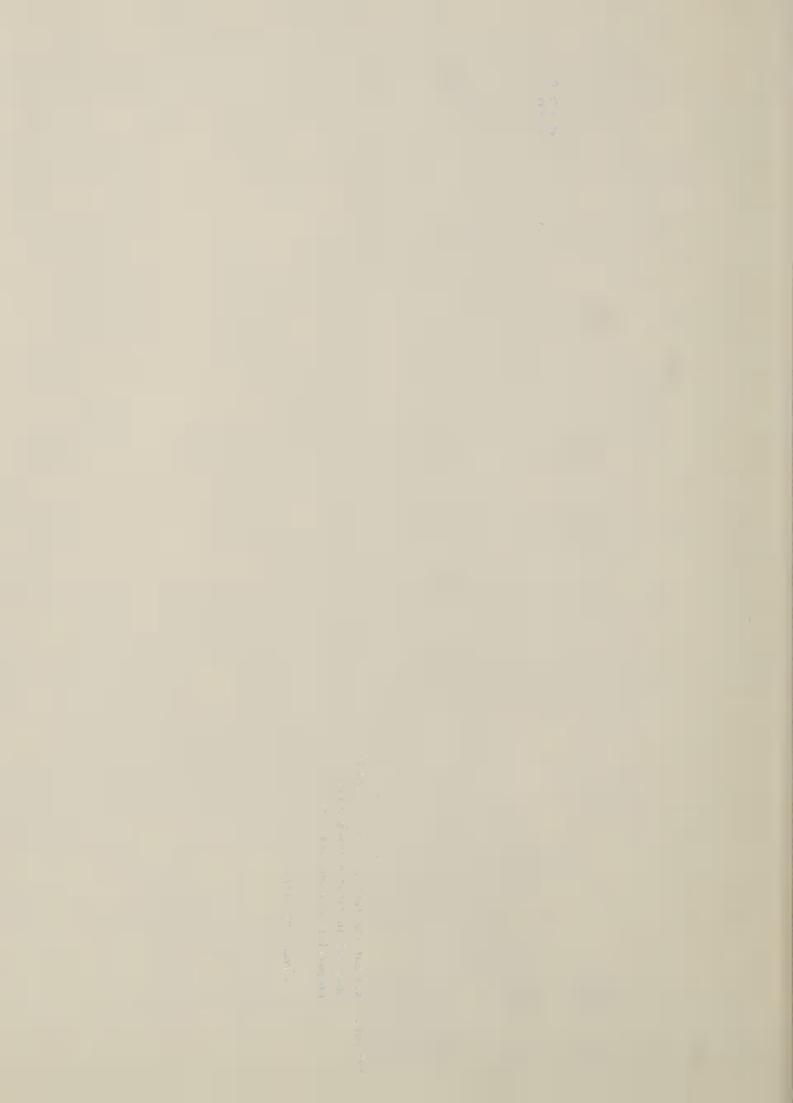
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NURSCO 23		~	MORO, PENDL, OR	L, 0R					C. R. ROHDE	IDE
LABNUM	VARIETY	ONGI	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
840635 HRAY-26 840636 ISN-8-2 840637 HATTON 840638 VISTON 840639 WINRIDGE	2-2 N N DGF	C1017772 C1017727 C1017902	HIRA HIRA HIRA HIRA HIRA HIRA	60.5 59.6 59.7 61.7 58.0	60.1 59.0 59.7 61.2 58.1	3.14	850 855 825 960 900	825 818 825 929 906	2 m m m m	P-BCRGR
840640 TRTUH 840641 SW073 840642 SUNDA 840643 CARTB 840644 CARTB	IRTUMPH/IAMCER SWU730902F-14-2H-0P.CB39 SURDANCT/VH70774, F-766 CARTBOU/DIPLOMAT.F-556 CARTBOU/DIPLOMAT.F-189	08792 8-458 8-518 8-483 8-443	SRW HRW HRW SRW SRW	59.3	57.8	1.8	800 775	707	3 VP	VP-FYELD VP-FYELD&MTIME P-FYELD&LVOL P-FYELD
840645 VARKA 840646 CNO71 840648 CAMA/ 840649 OWW/0 840650 WANSE	840645 VAKKA/VII/O774, F-774 840646 CNO/1NIA/HN7.MEXCB-78451.D-333 840648 CAMA/3/ELCIN//166910/ELGIN.107-7.K-7 840649 OWM/0134-3M4//MCD/178383.111-2.K-8 840650 WANSERPENDLETON	8-516 8-891 8-1206 8-1210 C1013844	HRW HRW HRW HRW	58.7 58.0 58.5 59.2 56.9	57.8 59.3 59.6 59.4		890 605 750 745	834 686 756 757	2 8 8 8 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Q-BCRGR P-LVOL&BCRGR P-LVOL&BCRGR P-LVOL&BCRGR
840651		8-1075	HRW	55.3	. 57.1	1.4	610	722	8 P-F	P-FYELD&BAKING
COMMENTS. ATT	COMMENTS. All List and list an									

COMMENTS: All but the last two (Wanser and B-1075) in this nursery were grown at Moro, the other two were from a Pendleton nursery. All appear abnormal in flour milling properties. Selections OR792, B-483, and B-443 were soft textured and based on their poor mixograph properties were not test baked for bread.

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P = Poor; VP= Very Poor; Q = Questionable



	LAB.	
	QUALITY	
A AR	WHEAT	. MM .
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ENDLETON, OR	CLASS TWI FYELD FASH MSCOR FPROT MABSC MIYPE CODIC RMKS $1/\sqrt{1/\sqrt{3}}$	SWM $60.5$ 71.8 $0.39$ 87.9 7.2 $49.2$ 1L $9.45$ 9.54 $9.54$ CLUB $60.4$ 71.8 $0.39$ 87.9 7.4 $49.3$ 5L $9.49$ 9.64 $9.64$ SWM $60.4$ 71.8 $0.38$ 86.3 $6.6$ 51.0 2L $9.15$ 9.19 9.19 SWW $61.5$ 72.1 $0.38$ 88.4 $5.7$ 51.2 1L $9.32$ 9.29 $9.00$ 0- Cookie Dia.	SWW 60.0 73.4 0.39 89.7 6.8 49.2 1L 9.29 9.38 SWW 59.9 68.4 0.38 84.3 6.0 51.0 1L 9.01 9.01Q- Cookie Dia SWW 59.1 69.5 0.40 84.1 6.5 51.0 1L 9.19 9.24 CLUB 59.4 69.7 0.40 84.4 6.6 50.4 1L 9.29 9.33 SWW 61.0 69.9 0.37 86.5 6.1 51.3 1L 9.54 9.55	5/ Particularly Promising Overall Quality Characteristics. $6/$ Promising Overall Quality Characteristics.
NURSCO 24	LABNUM	840652 PAHA/SEL.65-2124 (M76-432).A-1 840653 ND/P101//7C.CB-30.N-36 840654 7C-MORO 840655 65-116-MBW//63-189-66-7/BEZO 840655 HYS/YAYLA//63-112-66-4/3/HYS/SF.F/4 OWW74220F	840654 MILDRESS/3/YMH//REIB/WA4995 840658 MCDLRMID/ROMANIAN//OR7141.K-83 OR8270 840659 SILFHENS/CAMA//OR765.K59 6/0R8259 840660 FARO CIO17590 840661 SIEPHENS	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absroption at 14% Moisture Corrected to 6% Protein.

COMMENTS: Several of these selections which are footnoted have both outstanding milling and cookie baking quality and should be tested further.

Q = Questionable.

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KANSAS

NURSCO 25

LABNUM	VARIETY	ONGI	CLASS	FASH	FPROT	FPROT MABSC MTYPE BABS	E BABS	BABSC	BABSC MTIME LVOL	LVOL	LVOLC	LVOLC BCRGR RMKS	MKS
				1/	7	3/		3/			4		
840662 CONTROL 840663 EXPERIMENTAL		84-801	HRW	0.43	9.6		58.6	61.0	5.6	006	1049		
		84-803	HRW	0.48	10.6	58.0 8M	57.3	58.7	4.5	975	1049		control
		84-805	HRW	0.44	12.8		61.9	61.9	5.1	1070	1070	n	control
840667 EXPERIMENTAL 840668 CONTROL		84-806	HRW	0.48	12.8	9.0	63.1	62.3	6.3	1110	1060	-	control
		84-808	HRW	0.47	12.0	61.3 4H	62.0	62.0	<b>→</b> <del>+</del>	1025	1056 1095	Λ	control
		84-810	HRW	0.43	9:11	00	62.5	62.6	4.3	1075	1081 1087	2 2	control
840672 CONTROL 840673 EXPERIMENTAL		84-811	HRW	0.42	12.0	1.	62.4	62.4	5.0	1095	1095		
840674 EXPERIMENTAL		84-813	HRW	94.0	13.9	59.8 5H	63.4	61.5	5.5	1060	968	0 0 V V m N	control
1/ Observed Values Corre 3/ Absorption at 14% Moi	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected 12% Protein.			5/ Par 6/ Pro	ticular	Particularly Promising Overall Quality Characteristics. Promising Overall Quality Characteristics	Overall	Qualit	y Chara	acteris	tics.		1

COMMENTS: Baking trials of these flours were made in cooperation with the Hard Red Winter Wheat Council, Manhattan, KS. Detailed results were sent directly to their coordinator.

4/ Observed Values Corrected to 12% Protein.

6/ Promising Overall Quality Characteristics.

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NURSCO 26			LIND, R.S. WA	S. WA							C.F. KONZAK	
LABNUM	VARIETY	ONGI	CLASS	TWI	FYELD FASH	ASH 1	MSCOR	FPROT 1/	MABSC MIYPE	CODI	MSCOR FPROT MABSC MTYPE CODI. CODIC RMKS $\frac{1}{3} = \frac{3}{3}$	
840675 EDWALLLIND 840676 POTAM 70/FIELDERLIND 840677 EDWALLROYAL SLOPE 840678 POTAM 70/FIELDERROYAL SLOPE	RLIND SLOPE RROYAL SLOPE	P1477919 WA6920 P1477919 WA6920	MMS MMS SWW SWW	58.0 61.3 59.7 62.2	67.3 66.4 67.6 66.0	0.35 0.39 0.39 0.39	84.3 80.8 82.0 80.0	9.0 9.6 7.9 8.5	54.0 2M 53.8 4M 52.5 2L 53.5 3L	9.07 8.91 9.49 9.36	9.07 8.98 9.37 9.31	
1/ Observed Values Corrected to 14% Moisture Basis. $3/$ Absorption at 14% Moisture Corrected to 9% Prote $4/$ Observed Values Corrected to 9% Protein.	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 9% Protein. 4/ Observed Values Corrected to 9% Protein.			5/ Par 6/ Pro	ticular)	ly Prom	ising ( Qualit	overall y Char	5/ Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.	acteri	stics.	

These selections are continuation of a location study of WA6816, 6818, 6819, WA7073, & WA7074 in the Western Wheat Quality Lab. Nursery Code 017, and should be compared with them. Edwall was near the four location average. WA6820 was similar in cookie spread to WA6818, COMMENTS:

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USDA, SFA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 27		S	CORVALLIS,	OR				W.E. KRONSTAD	TAD
L ABNUM	VARIETY	IDNO	CLASS	TWI	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/
840679 STEPHENS 840680 H1LL 81 840681 JACMAR 840682 LEWJAIN 840683 DAWS		C1017596 C1017954 WA6585 C1017909	SWW SWW CLUB SWW SWW	58.1 61.1 58.6 60.3 59.3	72.9 74.0 73.8 72.6 69.4	0.43 0.42 0.40 0.40	885.7 885.7 852.4 80.3	8.7.2 7.55 7.55	53.0 53.5 53.9 53.9
840684 DUSTY 840685 ORCW8113 840686 ORCW8314 840687 ORCW8323 840688 ORCW8324		855WELT5 855WELT6 855WELT7 855WELT7	SWW SWW SWW WWS WWH	59.4 55.6 56.7 62.1 63.3	71.9 70.9 71.5 71.2 69.7	0.40 0.43 0.43 0.37 0.42	84.6 80.7 81.8 85.1 81.8	6.6 8.4 8.2 7.7 8.0	54.6 52.6 52.0 52.8 60.2
840689 ORCW8325 840690 ORCW8331 840691 ORCW8331 840692 ORCW8416 840693 ORCW8417		855WELT10 855WELT11 858WELT11 5/855WELT12 5/855WELT13	HWW SWW SWW	58.0 62.7 60.7 60.9 62.7	63.7 68.8 70.8 72.5	0.40 0.36 0.38 0.30	73.6 83.0 84.9 90.0 84.7	8.9 9.0 9.7 8.0	56.6 53.2 53.2 55.2
840694 ORCW8421 840695 ORCW8423		6/85SWELT14 85SWELT15	MMH	60.3	71.9	0.42	82.7	7.6	55.7
1/ Observed Values Corr 3/ Absorption at 14% Mc	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 8% Protein.	is. otein.		5/ Partic 6/ Promis	Particularly Promising Overall Quality Cha Promising Overall Quality Characteristics.	sing Overall Quality Char	Particularly Promising Overall Quality Characteristics. Promising Overall Quality Characteristics.	cteristics.	

 $\frac{4}{4}$  Observed Values Corrected to 8% Protein.

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USDA, SEA AR	SOFT WH	TE FLITE	SOFT WHITE FILTE VIELD TRIAL					
MISTERN WHEAT GOALTT LAB. PULLMAN, WA.	HA LIOS		ווברת ועושר					
NURSCO 27		CORVALLIS, OR	OR				W.E. KRONSTAD	
VARIETY	IDNO	CLASS	MTYPE	1000	CODIC 4/	CAVOL	SCSOR	RMKS
STEPHENS	C1017596	SWW	21	8.72	8.75	1235	75.0	
H111, 81	C1017954	SWW	3L 2M	8.84	8.79	1250	77.0	
LEWJAIN	C1017909	SWM	25	9.02	8.97	1275	75.0	
DAWS	, C1017419	SWW	51	8.56	8.4/	1235	0.01	
DUSTY		SWW	2L	8.76	8.61	1260	78.0	0
ORCW8113	855WELT5	NMS 3	2L	8.47	8.51	1215	74.0 V-FYELD&CUDI	COD!
ORCW8314	855WEL 10	MMC	27	0.0 5.72	8 49	1170	67.00-CODIRC	AVOI
ORCW8324	855WELT8	HWM	1 -1	7.82	7.82	)	Hard, P-CODI	CODI
ORCW8325	85SWELT9	HWM	31	7.94	8.01		Hard, P-	P-CODI
ORCW8329	85SWELT10	HWM	41	8.05	8.13		Hard, P-	P-CODI
ORCW8331	85SWELT11		31	8.17	8.31		Hard,	CODI
ORCW8416	855WELT12		3L	8.57	8.57	1235	74.0	
ORCW8417	85SWELT13		3L	8.71	8.70	1255		
ORCW8421	85SWELT14	SWW	31	8.57	8.53	1200	71.0 Q-CAVOL	
ORCW8423	85SWELT15		41	8.17	8, 19		Hard, P-CODI	CODI

COMMENTS: Note the selections which are hard endosperm )# 8, 9, 10, 11, & 15). Cookie diameters confirm their hard properties. See Remarks for deficiencies of other selections.

Q = Questionable; P = Poor

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USDA, SŁA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 28		ŏ	CORVALLIS, OR	OR				W.E. KRONSTAD	STAD
I ABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/
840696 STFPHFNS		61017596	SWW	58.4	72.8	0.42	85.5	7.7	51.6
840697 HILL 81		C1017954	SWW	61.0	74.1	0.41	86.7	7.3	52.0
840698 ORCW8516		6/85SWELT16	SWW	4.09	70.8	0.42	81.9	6.5	53.5
840699 ORCW8517		5/85SWELT17	MMS	62.4	72.8	0.33	90.3	7.6	52.5
840700 ORCW8518		6/85SWELT18	SWW	57.8	69.3	0.32	85.1	8.0	52.8
840701 ORCW8519		6/85SWELT19	SWW	62.5	71.5	0.39	83.6	7.3	52.8
840702 ORCW8520	•	85SWELT20	SWW	9.09	70.1	0.38	83.2	6.8	53.3
1/ Observed Values Corrected to 14% Moisturs 5/ Absorption at 14% Moisture Corrected to 4/ Observed Values Corrected to 7% Professor	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 7% Protein. 4/ Observed Values Corrected to 7% Protein	ein.		5/ Partic 6/ Promis	5/ Particularly Promising Overall Quality Cha 6/ Promising Overall Quality Characteristics.	sing Overall Quality Chara	5/ Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.	acteristics.	
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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 28		Ö	CORVALLIS, OR	OR				W.E. KRONSTAD	Ον
LABNUM	VARIETY	ONGI	CLASS	MTYPE	1000	COD1C	CAVOL	SCSOR	RMKS
840696 STEPHENS 840697 HTLL 81 840698 ORCW8516 840699 ORCW8517 840700 ORCW8518		C1017596 C1017954 85SWELT16 85SWELT17 85SWELT17	MMS SWM SWM SWM SWM SWM SWM	2L 2L 3L 1M	8.84 8.54 8.54 8.94 8.94	88.88 88.49 88.90 9.05	1220 1235 1275 1240 1200	74.0 75.0 77.0 Q-CODI 76.0 73.0 Q-FYELD	1 LD
840701 ORCW8519 840702 ORCW8520		85SWELT19 85SWELT20	MMS	2L 3L	8.66	8.70	1180	73.0 69.0 P-SCSOR	OR

COMMENTS: All of these selections have promising overall soft white wheat properties. No. 20 appears questionable in flour yield and baking performance.

Q = Questionable; P = Poor

W.E. KRONSTAD

CORVALLIS, OR

NURSCO 29

LABNUM	VARIETY	ONOI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC MTYPE	TPE CODI	CODIC RMKS
840703 STEPHENS 840704 STEPHENS 840705 OR8300058 840706 OR8300062		C1017596 C1017596 5/85WRPN4 6/85WRPN5	MAS MAS MAS MAS	60.4 60.0 61.2 60.4 60.8	71.6 70.6 74.1 72.0	0.40 0.36 0.40 0.37	86.8 87.8 90.1 89.0	99.50	53.3 2L 52.5 2L 53.7 4M 52.7 4L 53.1 4M	8.95 9.16 8.91 9.01 8.95	8.93 9.10 9.14 9.09
840708 OR8300166 840709 OR8300167 840710 OR8300211 840711 OR8300254 840712 OR8300297		855WRPN7 855WRPN8 855WRPN9 5/855WRPN10	SWW SWW SWW SWW	61.6 58.4 63.2 64.4 62.0	68.3 65.6 65.9 70.3	0.42 0.40 0.35 0.35 0.41	81.4 78.9 82.9 91.6 84.1	9.50	51.6 2M 53.1 3M 52.7 6L 52.2 2L 51.3 1L	9.61 9.02 9.02 9.56 9.24	9.72 Q-FYELD, EXC. CODI 9.26 P-FYELD 9.11 P-FYELD 9.60 9.09 Q-FYELD
840713 OR8300465 840714 OR8300465 840715 OR8300801 840716 OR8301012		6/855WRPN14 855WRPN14 855WRPN15 855WRPN16	SWW SWW SWW SWW SWW	63.2 60.0 59.2 63.6 62.4	67.8 70.5 68.3 70.2 66.9	0.36 0.42 0.37 0.35	84.2 87.8 81.1 86.8	8.7 10.0 10.0 8.8	52.3 2L 51.9 2L 54.0 4M 54.0 6L 51.8 2L	9.15	9.19 P-FYELD 9.11 P-FYELD 9.33 P-FYELD 9.40 P-FYELD
840718 OR83011047 840719 OR8301115 840720 OR8301296 840721 OR8301786 840722 OR8301787		6/855WRPN18 6/855WRPN19 855WRPN20 6/855WRPN23	SWW SWW SWW SWW SWW	62.0 63.6 57.6 62.8	69.5 70.3 69.1 70.3	0.38 0.36 0.41 0.33	85.5 883.1 889.3 85.2	8.8 9.8 7.7 7.4	52.1 2L 55.6 7M 51.8 2L 55.6 2L 55.0 2L	9.50 9.16 9.39 9.14	9.59 9.36 9.45 Q-FYELD 9.07 9.24
840723 0R8301833 840724 0R8301941 840725 0R8301942 840726 0R8302286 840727 0R8302288		6/85SWRPN24 85SWRPN25 85SWRPN26 6/85SWRPN27	SWW SWW SWW SWW	65.6 62.0 61.2 62.8 64.0	69.3 70.3 69.6 70.7	0.37 0.32 0.45 0.41	86.0 90.1 81.3 85.0	8.3 8.2 7.6 7.4	54.6 31.53.8 31.52.3 81.52.3 81.54.2 81.	8.87 9.17 9.09 9.09	8.91 9.19 9.11 Q-FYELD 9.04 9.21
840728 0R8302365 840729 0R8302396 840730 0R8302433 840731 0R8302499		6/85SWRPN29 85SWRPN30 85SWRPN31 85SWRPN32 6/85SWRPN33	SWW SWW SWW SWW	62.4 60.4 61.2 61.2	70.3 67.7 65.6 67.8 70.1	0.40 0.42 0.34 0.35 0.35	85.4 80.3 83.1 85.1 87.3	98967	52.7 2L 54.4 3L 55.2 4M 53.2 3L 54.7 4M	9.04 9.11 8.76 9.41	9.03 8.95 Q-FYELD 8.91 P-FYELD 9.41 Q-FYELD 9.22
840733 OR8302662 840734 OR8302663 840735 OR8302664 840736 OR8302665		855WRPN34 855WRPN35 6/855WRPN36 6/855WRPN37 6/855WRPN38	WWS SWW SWW SWW SWW	62.8 62.8 62.8 62.8	68.2 67.7 68.3 68.2 68.2	0.33 0.41 0.34 0.33	86.8 81.1 86.7 86.8	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	52.2 2M 51.5 2M 51.6 2M 52.9 4M	9.22 9.02 9.09 9.09	9.31 Q-FYELD 9.05 Q-FYELD 9.24 Q-FYELD 9.18 Q-FYELD 9.12 Q-FYELD

<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 8% Protein. 4/ Observed Values Corrected to 8% Protein.

<sup>5/</sup> Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.

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KRONSTAD	RMKS	FYELD	-CODI -MSCOR	Q-MSCOR Q-CODI	-MSCOR	P-FYELD Q-FYELD	-FYELD&CODI	Q-FYELD
E. KR	CODIC 4/	. 18 P- . 12 . 36 Q- . 44 Q-	.34 .59 .67 P- .93 Q-	.92 Q-1 .57 .19 .89 Q-(	46 28 Q-N 34 28 15	96 P- 38 03 27 13 Q-	29 11 85 0 17	87 19 21 13 11 Q-F
I.	_	09 9 114 9 37 9 46 9 29 9	51 9 64 9 76 8 97 8	004 825 82 82 82 83 83 84 85 86 86 86 86 86 86 86 86 86 86 86 86 86	6 6 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	00 88. 14 99. 6 99.	7 2 5 9 . 0 2 9 . 9 .	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	PE COD	99999	00000	00000	00000	0.0000	99899	00000
	C MTYPE	33 21 61 21	2L 2L 2L 2L	351	2L 4L 2L	31 41 31 31	# # # # # # # # # # # # # # # # # # #	22L 22L 33L
	MABSC 3/	53.3 54.6 54.0 50.6 53.1	52.2 52.2 53.2 51.9	522.6	50.9 52.2 53.0 52.1	53.5 55.1 57.1 54.2	55.8 56.1 54.9 53.4	553.5
	FPROT 1/	8.8 7.9 7.9	6.4 7.6 7.6 7.0	6.9 8.2 8.8 8.6	7.5 7.5 7.5 6.1	9.77.8	8.7 7.7 7.7	6.78
	MSCOR	81.7 85.0 81.7 83.3	5.5	3.4 9.1 0.1 4.7	9.98	5.700	6.57.7.0	53.04.0
	FASH 1	.40 .39 .37 .37	.37 8 .40 8 .42 8 .43 8	.32 88 .32 88 .35 9	35 9 43 88 37 8 36 9 36 8	44 7 40 8 37 8 37 8 8 37 8	39 88 328 88 32 99	35 8 26 9 28 9 31 9 37 8
	FYELD F	0000	0000	00000	42640	14 0 7 0 0 1 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0	00000	00000
~	FY	69 68 67 67 67 68	707000000000000000000000000000000000000	71 69 69 72 69	72 69 71 72 72 72	67. 69. 69. 68.	70.71.68.71.70.	70.72.71.71.
1S, OR	TWT	61.6 56.0 63.2 60.8 61.2	61.6 62.4 59.6 59.2 61.2	60.8 60.4 62.4 61.6 58.8	60.4 55.6 60.0 62.4 61.6	60.8 59.6 60.4 60.2 58.4	58.8 61.2 60.4 63.6	59.2 59.6 61.6 60.0 62.0
CORVALLI	CLASS	NAS NAS NAS NAS NAS	SWW SWW SWW SWW	SWW SWW SWW SWW	MMS MMS MMS MMS	SWW SWW SWW SWW	MMS SWM SWM SWM	SWW SWW SWW SWW
Ö	10	PN39 PN40 PN41 PN42	PN44 PN45 PN45 PN47	PN49 PN50 PN51 PN53	PN54 PN55 PN56 PN57	PN59 PN60 PN61 PN62	PN64 PN65 PN65 PN67 PN67	PN69 PN70 PN71 PN72
	IDNO	85SWRPNU 85SWRPNU 85SWRPNU 85SWRPNU 85SWRPNU	855WRPNU 855WRPNU 855WRPNU 855WRPNU 855WRPNU	85SWRPN9 85SWRPN9 85SWRPN9 85SWRPN9	85SWRPNS 85SWRPNS 85SWRPNS 85SWRPNS 85SWRPNS	85SWRPNG 85SWRPNG 84SWRPNG 85SWRPNG	855WRPN 855WRPN 855WRPN 855WRPN	855WRPN 855WRPN 855WRPN 855WRPN
		<b>o</b> l <b>o</b> l .	oj(n) o)	อใจโทโทโ	תן תותותו	ଦାଦାଦାଦ	0/01 0/01	
			·					
	VARIETY							
	<b>/</b> /							
		92 125 132 139	)53 )85 )98 )02	104 114 129 134 158	185 266 301 313 351	3414 3444 3451 3454 3455	649 466 646 649	3702 3723 3725 3725 3765
29		0R8302792 0R8303029 0R8303033 0R8303030	OR8303053 OR8303085 OR8303098 OR8303102	OR83031 OR83031 OR83031 OR83031	OR83031 OR83033 OR83033 OR83033	OR83034 OR83034 OR83034 OR83034	OR83034 OR83034 OR83034 OR83036	OR83037 OR83037 OR83037 OR83037
	MUH		743 0					
NURSCO	LABNUM	840738 840739 840740 840741	840743 840744 840745 840746	840748 840749 840750 840751 840752	840753 840754 840755 840756 840756	840758 840759 840760 840761 840761	840763 840764 840765 840766 840767	840768 840769 840770 840771 840771

NURSCO 29		0	CORVALLIS, OR	S, OR							W.E. KRONSTAD	
LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC MTY	MTYPE CODI	CODIC RMKS	
840773 OR8304516 840774 OR8304686 840775 OR8304709 840776 OR8304746 840777 OR8304805		6/855WRPN74 6/855WRPN75 6/855WRPN76 5/855WRPN77 855WRPN77	SWW SWW SWW SWW	58.0 60.8 60.0 61.6 58.4	69.1 70.9 69.9 70.3 66.8	0.36 0.38 0.33 0.40	86.4 87.0 88.9 91.4	7.5 7.5 7.5	55.7 3L 54.2 2L 54.3 2L 55.9 4L 53.4 3L	9.17 9.30 9.26 9.45 9.45	9.03 9.20 9.12 9.36 9.35P-FYELD	
840778 OR8204807 840779 OR8304817 840780 OR8304821 840781 OR8305024 840782 OR8305082		6/855WRPN79 855WRPN80 855WRPN81 6/855WRPN82 5/855WRPN83		57.6 56.0 58.0 61.6 63.2	68.7 65.9 66.5 68.9 71.5	0.36 0.41 0.37 0.36	85.7 78.9 82.1 85.8	7.5	53.7 2L 54.1 2L 54.7 2L 53.2 3M 54.8 2L	9.22 9.32 9.30 9.20	9.14Q-FYELD 9.13P-FYELD 9.24P-FYELD 9.37Q-FYELD 9.09	
840783 0R8305212 840784 0R8305219 840785 0R8305232		5/855WRPN84 5/855WRPN85 5/855WRPN86	SWW	62.0 60.8 62.8	71.8 73.0 72.1	0.30	93.5 88.2 89.1	8.5	54.0 3M 54.2 3M 51.3 2M	9.17	9.23 9.13 9.36	

COMMENTS: The following selections are noteworthy for outstanding flour milling quality: OR830058, 211, 3134, 3185, 3646, 3723, 3725, 3734, 5082, and 5212. Others footnoted are very good also. See "Remarks" for specific deficiencies.

P = Poor; Q = Questionable

SALINITY STUDY ON WHEAT AND TRITICALE

WESTERN WHEAT QUALITY LAB. PULLMAN, WA.	ITY STUDY ON WHEAT AND TRITICALE	PAGE 1
NURSCO 30	RIVERSIDE, CA	MAAS/SAUNDERS

L ABNUM	VARIETY	ONG	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
840786 PROBRED 840787 PROBRED 840788 PROBRED 840801 PROBRED 840802 PROBRED		T1R1-1.4 T1R2-1.4 T1R3-1.4 T6R1-20.0	HRW HRW HRW HRW	64.3 63.8 64.2 64.3 63.9	71.8 70.1 69.2 71.0	0.44 0.44 0.43 0.41	83.1 81.0 79.9 82.8 82.4	9.8	62.8 66.3 66.9 66.9	8M 8M 8M 7H 7H
840803 PROBRED 840804 BEAGUELITA'S TRITICALE 840805 BEAGUELITA'S TRITICALE 840806 BEAGUELITA'S TRITICALE 840819 BEAGUELITA'S TRITICALE		1683-20.0 1181-1.4 1182-1.4 1183-1.4	HRW TRIT TRIT TRIT	64.1 51.9 50.1 52.0 53.7	69.9 60.9 61.7 63.1	0.41 0.50 0.56 0.51	81.8 62.7 60.1 65.5	12.1 10.0 9.3 4.9	4 4 4 4	7H 6M 7L 5L
840820 BEAGUELITA'S TRITICALE 840821 BEAGUELITA'S TRITICALE 840822 CANANEA TRITICALE 840823 CANANEA TRITICALE 840824 CANANEA TRITICALE		16R2-20.0 16R3-20.0 11R1-1.4 11R2-1.4	TRIT TRIT TRIT TRIT	52.9 53.2 52.6 54.8	63.8 65.2 64.5 64.5	0.49 0.50 0.46 0.49	68.7 67.5 69.9 56.7	9.90 1.00 2.01 8.90 8.90	60.1 61.4 57.6 55.6 55.9	2 4 L 2 2 M 2 C L 2 C L
840837 CANANEA TRITICALE 840838 CANANEA TRITICALE 840839 CANANEA TRITICALE		T6R1-20.0 T6R2-20.0 T6R3-20.0	TRIT	55.0 54.3 54.6	66.5	0.44 0.44 0.48	74.0 73.8 69.4	10.1	54.6 54.8 54.8	2L 3L 3L
1/ Observed Values Corrected to 14% Moisture 3/ Absorption at 14% Moisture Corrected to 1/4/ Observed Values Corrected to 10% Protein.	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 10% Protein. 4/ Observed Values Corrected to 10% Protein.	·		5/ Parti 6/ Promi	cularly Prosing Overa	omising Ov 11 Quality	Particularly Promising Overall Quality Characteristics. Promising Overall Quality Characteristics.	ty Characte	eristics.	

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NURSCO 30	æ	RIVERSIDE, CA	CA					MAAS/SAUNDERS	NDERS
L ABNUM VARIETY	I DNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC	BCRGR	RMKS
840786 PROBRED 840787 PROBRED 840788 PROBRED 840801 PROBRED 840802 PROBRED	T1R1-1.4 T1R2-1.4 T1R3-1.4 T6R1-20.0	HRW HRW HRW HRW	65.3 68.7 68.6 711.2	65.5 69.0 69.2 69.6 69.6	4.7 7.9 5.9 6.2	650 600 590 655 655	662 619 627 556 525	∞ ∞ ∞ ∞ ∞	
840803 PROBRED 840804 BEAGUELITA'S TRITICALE 840805 BEAGUELITA'S TRITICALE 840806 BEAGUELITA'S TRITICALE 840819 BEAGUELITA'S TRITICALE	1683-20.0 1181-1.4 1182-1.4 1183-1.4	HRW TRIT TRIT TRIT	71.2 60.9 62.8 62.8 62.8	69.1 61.2 62.8 63.5	3.707.70	725 535 465 525 605	595 554 568 642	<b>80000</b>	
840820 BEAGUELITA'S TRITICALE 840821 BEAGUELITA'S TRITICALE 840822 CANANEA TRITICALE 840823 CANANEA TRITICALE 840824 CANANEA TRITICALE	16R2-20.0 16R3-20.0 11R1-1.4 11R2-1.4	TREET TREET	61.6 62.5 57.8 55.8	61.8 63.1 57.3 55.3 56.1	3.7.1	585 525 665 620 610	597 562 634 589 622	00000	
840837 CANANEA TRITICALE 840838 CANANEA TRITICALE 840839 CANANEA TRITICALE	T6R1-20.0 T6R2-20.0 T6R3-20.0	TRIT	54.9 54.3 54.8	54.8 54.0 54.5	1.5	605 560 500	599 541 481	000	

COMMENTS: The higher salinity (20.0 ds/m) water produced 2-3% higher protein than the low level in the Probred wheat, however the corrected loaf volume (10% protein) indicates that the protein was of poorer baking quality. All bread crumb grains were extremely poor. No protein differences were produced in the Triticales. The flour yield and milling score of the triticales were slightly higher with the higher salinity water.

		1 No. 1	

	LAB.	
	WESTERN WHEAT QUALITY	
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NURSCO 31		BZ,	HV, CN, MC, SD, MONT*	, SD, MO	*: \						MCNEAL&TAYLOR	FAYLOR
LABNUM	VARIETY	I DNO	CLASS	FASH 1/	FPROT 1/	MABSC MTYPE	PE BABS	BABSC 3/	MTIME	LVOL	LVOLC H	BCRGR RMKS
840840 FORTUNA (C1013596 840841 840842 840843 840844 FORTUNA (C1013596	(596)	HV301 HV302 HV303 HV304 CN305	HRS HRS HRS HRS	0.48 0.45 0.45 0.49	16.5 14.1 13.5 13.0	65.0 2H 68.2 5H 65.6 5H 70.9 7H 62.8 3H	69.7 70.0 66.8 74.7	67.2 69.9 67.3 72.6 65.5	1.27.3.1	1080 1075 1215 1135 965	925 1069 1246 1005	3 Fortuna 2 > Fortuna 2 > Fortuna 3 > Fortuna
840845 840846 840847 840848 FORTUNA (C1013596 840849	(969)	CN306 CN307 CN308 MC309 MC310	HRS HRS HRS HRS HRS	0.44 0.58 0.51 0.63	12.4 11.4 16.3	67.1 4H 67.4 5H 69.9 6H 66.7 5H 69.5 5H	67.2 67.5 71.6 71.7 73.8			30400	1099 1086 940 857 1074	3 > Fortuna 4 = Fortuna 2 < Fortuna 3 > Fortuna
840850 840851 FORTUNA (CI013596) 840852 840853 840853	(296)	MC312 SD313 SD314 SD315 SD316	HRS HRS HRS HRS	0.70 0.50 0.51 0.58	16.2 14.4 13.0 13.3	70.7 7H 64.1 4H 65.5 5H 66.5 5H 70.5 7H	74.6 66.2 66.2 67.5 74.3	72.4 65.8 67.2 68.2 72.2	10.7 3.7 5.4 6.4	985 1090 1050 1190 995	849 1065 1112 1233 865	2 < Fortuna 2 = Fortuna 1 < Fortuna 2 < Fortuna
840855 WINALTA (C1013670 840856 840857 840858 WINALTA (C1013670) 840859	(670)	BZ351 BZ352 BZ353 HV354 HV355	HRW HRW HRW HRW	0.46 0.43 0.39 0.42 0.39	12.1 12.6 13.6 12.5	65.0 4H 65.0 4H 65.4 3H 66.9 4H	66.8 65.3 66.7 68.0 64.7	66.7 66.7 67.1 68.6 66.2	33.77	1045 945 1005 1015	1039 1032 1030 1052	
840860 840861 WINALTA (C1013670 840862 840863 840864 WINALTA (C1013670	(670)	HV356 CN357 CN358 CN359 MC360	HRW HRW HRW HRW	0.43 0.42 0.41 0.39 0.49	13.3 12.9 11.8 15.0	64.3 4H 66.9 4H 67.6 4H 63.8 3H 69.3 6H	65.3 67.5 67.1 63.6 72.0	66.0 68.6 69.3 65.5	00000 00000	955 970 895 965	998 1038 1031 988	3 < Winalta 2 Winalta 4 < Winalta 3 < Winalta
840865 840866		MC361 MC362	HRW	0.48	13.6	65.1 5H 67.1 6H	67.4	67.8	5.1	910	935 993	3 < Winalta 3 = Winalta
1/ Observed Values Corrected to 14% Moisture 3/ Absorption at 14% Moisture Corrected to 14/ 4/ Observed Values Corrected to 14% Protein.	Observed Values Corrected to 14% Moisture Basis. Absorption at 14% Moisture Corrected to 14% Protein. Observed Values Corrected to 14% Protein.	in.		5/ Par 6/ Pro	Particularly Promising Ove	Promi rall	Promising Overall Quality Chrall Quality Chrall Quality Characteristics	Quality Characteristics acteristics.	Chara	cterist	ics.	

These baking analysis were done in cooperation with the Montana Wheat Quality Council. Detailed results were sent directly to the MWQC coordinator. Notes in the Remarks column are overall rating considering milling (not shown), protein and baking data. COMMENTS:

<sup>\*</sup> Nurseries grown at Bozeman (BZ), Havre (HV), Conrad (CN), Moccasin (MC), and Sidney (SD), Montana.

NURSCO	32	ROY	ROYAL SLOPE,	E, WA					O	F. KONZAK	1K
LABNUM	VARIETY	I DNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
840867 840868 840869 840869 840870	DIRKWIN WAVERLY EDWALL 1D0045/5/A65359-443-101/3/A63166S-1-4-1- 5*TWIN/4/1D0020/3/SN/FR//LMH 66/5/TWIN/6	C1017745 C1017911 P1477919 1D0181056/	SWS SWS SWS SWS	57.9 58.8 60.7 59.0 58.9	65.1 64.5 64.9 64.2	0.43 0.37 0.35 0.37	77.5 80.2 82.1 79.9 80.1	8.7 7.8 7.8 1.8	53.4 54.4 52.9	2L 4L 3L 3L	
840872 840873 840874 840875 840876	1D0174/HD-2167 DIRKWIN/PAVON "S" 1D0045/S/1D0045/7/2*FLR/6/A6535S-443-101 MPC 770062 MPC 770039	100002946/ 100002956/ 100002966/ 0RS084166/ ORS084196/	SWS SWS SWS HWS HWS	62.0 60.1 61.6 63.4 62.6	67.0 66.9 64.9 64.3	0.38 0.40 0.38 0.39	82.7 81.4 80.4 80.1	888 7.000 0.00	53.6 53.0 52.7 60.1	5L 2L 8M 8M	62.4
840877 840878 840879 840880 840881	CM 37760, F6 JUP 73/4/7C/PATO R/3/LR 64 CM 37760, F7 JUP 73/4/7C/PATO R/3/LR 64 K79296-3 K78504/K74129-49 NZ SEL.03 K79299-24 K78504/K74129-33/K7806645 NZ K79299-5 K78504/K74129-33/K7806645 NZ	ORSO84206/ ORSO84216/ WAO071745/ WAO071755/	HWS HWS SWS SWS SWS	63.1 62.3 64.1 63.7 62.2	67.1 67.6 69.2 68.2 65.7	0.43 0.42 0.34 0.35 0.41	81.0 81.8 88.4 86.0 79.4	000088 7.7.8.8.5	59 53.2 53.2 52.2	6M 2H 2L 2L	61.5
840882 840883 840884 840885 840885	K79299-12 K78504/K74129-33/K7806645 NZ K79299-15 K78604/K74129-33/K7806645 NZ K79299-19 K78504/K74129-33/K7806645 NZ K74135/POTAM 70 K74182/POTAM 70	WA007177 WA007178 WA0071796/ WA0071865/	SWS SWS SWS SWS SWS	61.8 62.0 62.1 63.5	63.8 65.2 66.8 68.1	0.38 0.37 0.38 0.32 0.33	78.7 81.3 82.8 88.0 88.3	88.4 8.4 9.1 10.1	53.1 53.4 53.2 57.4 55.2	31 61 6M	
840887 840888 840889	K74322/POTAM 70 K74322/POTAM 70	WA0071886/ WA007189 <u>6/</u> K805223 <u>6</u> /	SWS	61.2 61.3 56.1	66.3 67.2 68.9	0.34	84.5 83.6 78.4	9.3	55.7 55.5 54.0	4L 6M 4M	
1/ Obse 3/ Abso	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 9% Protein.			5/ Part 6/ Prom	Particularly Promising Ove	Promising rall Qual	Particularly Promising Overall Quality Ch Promising Overall Quality Characteristics	Quality C	Characteristics .cs.	stics.	

 $<sup>\</sup>underline{1}/$  Observed Values Corrected to 14% Moisture Basis.  $\underline{3}/$  Absorption at 14% Moisture Corrected to 9% Protein.  $\underline{4}/$  Observed Values Corrected to 9% Protein.

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.	ń	TRI-STA	TRI-STATE SWS WHEAT QUALITY	EAT QUAL	Σ					CONTD. PAGE	AGE 1
NURSCO 32		RC	ROYAL SLOPE,	E, WA					0	C.F. KONZAK	×
LABNUM	VARIETY	t DNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	1000	C0D1C	RMKS
840867 DIRKWIN 840868 WAVERLY 840869 EDWALL 840870 1D0045/5/A65359-44 840871 5*TWIN/4/1D0020/3/	DIRKWIN WAVERLY EDWALL 1D0045/5/A65359-443-101/3/A63166S-1-4-1- 5*TWIN/4/ID0020/3/SN/FR//LMH 66/5/TWIN/6	C1017745 C1017911 P1477919 1D018105	SMS SMS SMS SMS						9.37 9.17 9.40 9.10	9.28 9.14 9.27 9.00	
840872 1D0174/HD-2167 840873 DIRKWIN/PAVON "S" 840874 1D0045/S/1D0045/7/ 840875 MPC 770062 840876 MPC 770062	1D0174/HD-2167 DIRKWIN/PAVON "S" 1D0045/S/1D0045/7/2*FLR/6/A6535S-4443-101 MPC 770062 MPC 770039	10000294 10000295 10000296 0RS08416 0RS08419	SWS SWS SWS HWS HWS	61.8	5.5	905 885	868	~~	9.19 9.34 9.32 8.39 8.50	9.13 9.28 9.25 8.44 8.58	
840877 CM 37760, F6 JUP 73/4/7C/PATO 840878 CM 37760, F7 JUP 73/4/7C/PATO 840879 K79296-3 K78504/K74129-49 NZ 840880 K79299-24 K78504/K74129-33/// 840881 K79299-5 K78504/K74129-33//K	R/3/LR 64 R/3/LR 64 SEL.03 X7806645 NZ 7806645 NZ	ORSO8421 ORSO8421 WAOO7174 WAOO7175	HWS SWS SWS SWS	61.0	5.1	880	844	27	8.62 8.67 9.07 9.52	8.66 8.71 9.16 9.22 9.44	
840882 K79299-12 K78504/K 840883 K79299-15 K78604/K 840884 K79299-19 K78504/K 840885 K74135/POTAM 70 840886 K74182/POTAM 70	K78504/K74129-33//K7806645 NZ K78604/K74129-33//K7806645 NZ K78504/K74129-33//K7806645 NZ FAM 70	WA007177 WA007178 WA007179 WA007186	SWS SWS SWS SWS						9.09 9.05 9.39 9.17	9.02Q-FYELD, 8.98Q-CODI 9.32 9.19	ELD, COD
840887 K74322/POTAM 70 840888 K74322/POTAM 70 840889		WA007188 WA007189 K805223	SWS SWS SWS						9.02	9.04 8.960-codi	IQ

All were atypically low in flour yield. Judgements were based on the performance compared to the check varieties. The Oregon selections were all hard endosperms, with satisfactory bread baking properties. COMMENTS:

NURSCO 33

MT, OR, WA

MTYPE 3L 52L 42L 4 4 4 4 4 7 4 7 4 3M 4L 4L 6L 3427 Particularly Promising Overall Quality Characteristics. MABSC 58.8 51.6 53.9 52.6 52.0 53.7 53.7 53.4 53.5 54.0 54.8 54.1 57.5 53.1 56.2 56.7 553.8 53.8 54.8 55.0 553.7 FPROT 98096 m 80 10 m 0 2-207 7.9 5 m m m m 77888 8080 886000 80808 MSCOR 80.6 86.7 85.6 81.3 84.5 85.1 82.7 76.7 81.8 81.2 80.6 84.6 79.8 78.0 80.9 81.5 81.1 81.8 82.6 73.6 82.2 83.8 76.3 86.5 74.2 85.2 FASH 0.44 0.44 0.42 0.42 0.41 0.43 0.40 0.45 0.42 0.39 0.39 0.40 0.41 0.42 0.43 0.40 0.41 0.46 0.41 0.39 0.47 0.41 0.43 40 44 44 47 00000 FYELD 69.1 75.0 74.6 70.6 71.2 70.8 70.7 73.2 69.8 73.1 73.6 71.3 69.2 71.6 69.3 71.1 71.4 69.7 71.7 71.2 67.4 71.1 67.9 73.5 66.8 72.8 68.4 60.8 61.0 59.5 61.7 59.6 61.5 60.4 58.4 59.2 62.4 59.2 60.0 60.3 60.0 62.0 58.0 90000 00000 TWT 58. 500.00 CLUB CLUB SWW HWW SWW HRW CLUB CLUB SWW SWW SWW SWW CLUB SWW SWW CLUB HWW SWW HWW CLASS SWW SWW SWW SWW SWW SWW SWW SWW SWW OR8188 C1017962 ORCW8314 ORCW8318 WA7167 2/WA7165 01765784 01754022 01754989 C1001442 C1011755 C1013740 C1013968 C1017596 ORCW8113 OR835 OR7996 WA7050 C1017773 WA6698 WA6819 WA6910 WA6912 WA7168 WA7169 WA7170 WA7163 WA7164 DNO الماريم 7C/CNO//CAL/3/YMH 1523/DC DWF//RBS.F./3/WA5989 VB72277.WA4996/VH66457//M722712(VB079342 90 (०)(०)(०)(०) Observed Values Corrected to 14% Moisture Basis, VH74340.CI14484/66344/LUKE/3/NCO(VHO. 55-1744/7C//SU/RDL(VM82430) VPM/MOS951//2\*OR68007 1523. DRC/RBS HYS/YAYLA//WA4995/3/CERCO.W-1980 P1173467/GNS.SEL.292-1//MORO.77261 NORCO/VH72297.VH080717 SW92/6\*0/3/T.SP/CTL//3\*0 CJP CLUB/SPRAGUE MARIS HUNTSMAN/VH74521.VH08490 BVR/C115923/NGS.VH074575 (DUSTY) HYS/NORCO//CAMA///SM4.A1358 PHOENIX.WW33 VPM/MOS951//2\*RAEDER VPM/MOS951//2\*TYEE ROMANIA FONDEA 12-71/JUP RDL/SU92//KALIAN/BB MNIM//KAL/BB VARIETY CERCO/RAEDER. VJ081146 SPN//63189-66-71/BEZ VPM/MOS95//YMH/HYS NUGAINES KHARKOF ELGIN TYEE 840915 840916 840917 840918 840919 840910 840911 840912 840913 840914 840907 840908 840909 840901 840902 840903 840904 840905 840895 840896 840897 840898 840890 840891 840892 840893 840893 840900 LABNUM

Promising Overall Quality Characteristics, 6 12 8% Protein

<sup>3/</sup> Absorption at 14% Moisture Corrected to 8% Prote 4/ Observed Values Corrected to 8% Protein.

NURSCO 33

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KHARKOF ELGIN MORA NUGAINES STEPHENS TYEE SW92/6*0/3/T.SP/CTL//3*0 C1017773 SW92/6*0/3/T.SP/CTL//3*0 C1017773 SW92/6*0/3/T.SP/CTL//3*0 C1017773 SW92/6*0/3/T.SP/CTL//3*0 WA6698 CJP CLUB/SPRAGUE WA6819 WA6819 WA6819 WA6910 BVR/C115923/NGS.VH074575 (DUSTY) WA6910 WA6910 SPN/63189-66-71/BEZ SPN/63189-66-71/BEZ SPN/63189-66-71/BEZ SPN/63189-66-71/BEZ SPN/63189-66-71/BEZ SPN/63189-66-71/BEZ ORCW8113 ORCW8113 HYS/NORCO//CAMA///SM4.A1358 C1017962 CCONO//CAL/3/WH 1523/DC DWF//RBS.F./3/WA5989 VB72277.WA4996/VH66457//M722712(VB079342 WA7167	S S 0/3/T.SP/CTL//3*0 B/SPRAGUE IUNTSMAN/VH74521.VH08490 5923/NGS.VH074575 (DUSTY) 1189-66-71/BEZ 1C/RBS 1LA/WA44995/3/CERCO.W-1980 37/GNS.SEL.292-1//M0R0.77261 7172297.VH080717	001442 011755 013740 013968 017596 017773 6698 66910 66912 66912 66912 67050	HRW CLUB SWW SWW CLUB CLUB CLUB SWW HWW SWW	8.00 9.01 8.71 8.62 9.03 9.03	8.10 9.04 9.12	1050		147	68
TYEE SW92/6*0/3/T.SP/CTL//3*0 SW92/6*0/3/T.SP/CTL//3*0 SW92/6*0/3/T.SP/CTL//3*0 SW92/6*0/3/T.SP/CTL//3*0 WA6698 CJP CLUB/SPRAGUE MA6819 WA6819 WA6910 BVR/C115923/NGS.VH074575 (DUSTY) WA6910 WA6912 SPN//63189-66-71/BEZ SPN//63189-66-71/BEZ SPN//63189-66-71/BEZ SPN//63189-66-71/BEZ SPN//63189-66-71/BEZ SPN//63189-66-71/BEZ SPN//63189-66-71/BEZ SPN//63189-66-71/BEZ SPN//63189-66-71/BEZ SPN//63189-66-71/MORO.77261 WA7050 WA7167		017773 6698 6698 (6910 (6912 (6912 (CW8113 (835 (7050	CLUB SWW HWW SWW SWW	0,00000		1235 1190 1155	76.0 70.0 68.0 68.0	382 374 374	67 73 67
SPN//63189-66-71/BEZ 1523.DRC/RBS HYS/YAYLA/WA4995/3/CERCO.W-1980 P1173467/GNS.SEL.292-1//MORO.77261 NORCO/VH72297.VH080717 HYS/NORCO//CAMA//SM4.A1358 PHOENIX.WW3 7C/CNO//CAL/3/YM4 1523/DC DWF//RBS.F./3/WA5989 VB72277.WA4996/YH66457//M722712(VB079342 WA7167		(CW8113 (835 (7996 (7050	SWW		8.90 8.85 9.03 9.06	1285 1265 1230 1170 1225	76.0 74.0 74.0 66.0 68.0	373 397 379 385 350	68 76 69 71 Q-MILLING(Hard) 66 Q-SCSOR&NOSCO
HYS/NORCO//CAMA///SM4.A1358 OR8188 C1017962 7C/CNO//CAL/3/YMH 1523/DC DWF//RBS.F./3/WA5989 ORCW8318 VB72277.WA4996/VH66457//M722712(VB079342 WA7167		· · · · · · · · · · · · · · · · · · ·	SWW CLUB SWW	8.69 9.16 8.87 8.99	8.73 9.25 8.92 8.94 9.08	1250 1240 1200 1200	79.0 77.0 73.0 75.0	370 362 358 368 342	72 63 Q-NOSCO 70 72 70 Q-FYELD
CFBCO / BAEDED 1/100111/6		(8188 (017962 (CW8314 (7167	SWW HWW SWW SWW SWW	8.59 8.71 8.75 8.53	8.66 8.37 8.76 8.87	1205 1055 1210 1230 1085	74.0 58.0 74.0 77.0 58.0	364 376 382 368	68 Q-MILLING 74 P-CODISCAVOL 74 76 71 Q-MILLING&CODI
MA7169 82430) WA7170 WA7163 WA7163	3/NCO(VHO	WA7168 WA7169 WA7170 WA7163	SWW SWW HWW SWW SWW	9.29 9.06 8.10 8.59 8.74	9.33 9.07 8.25 8.74 8.80	1305 1270 1125 1175 1135	80.0 77.0 70.0 72.0 67.0	350 357 370 370	69 62 P-MILLING(Hard) 69 Excel, FYELD
840915 VPM/MOS951//2*RAEDER 840916 VPM/MOS951//2*TYEE 840917 ROMANIA FONDEA 12-71/JUP 01765784 HI 840918 RDL/SU92//KALIAN/BB 01754022 SI 840919 MNIM//KAL/BB	/JUP	7165 7166 765784 754022 754989	SWW CLUB HWW SWW HWW	8.88 9.09 8.22 9.22 7.93	8.87 9.04 8.26 9.18 7.91	1295 1255 1125 1275 1070	79.0 76.0 64.0 78.0 57.0	364 371 374 373 357	71 P-MILLING 74 71 P-MILLING(Hard) 72 P-MILLING(Hard)

COMMENTS: WA6910, WA7170, 01765784, and 01754989 have characteristic flour properties of hard endosperm wheats. Noodle scores of the entire nursery were low, but probably due to the low protein. Seed for analysis was composited with equal parts from Ritzville, WA, See "Remarks" column for other deficiencies. Stillwater, MT, Pendleton, OR, and Moro, OR.

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.		DUAL PUR	PURPOSE									PAGE	-
NURSCO 34	LNE	LND, PLMN, R.	S., WA								C.F. KC	KONZAK	
LABNUM	IDNO	CLASS	TWT	FYELD FASH	FASH 1/	MSCOR	FPROT	MABSC 3/	MTYPE	BABS	BABSC	MTIME	
840920 EDWALLLIND 840921 MCKAY 840922 K74135/POTAM 70 840923 K74182/POTAM 70 840924 K74322/POTAM 70	P1477919 C1017903 5/ WA7186 5/ WA7187 6/ WA7188	SWS HRS SWS SWS	58.8 61.4 61.9 62.3	70.1 76.8 72.1 71.4	0.36 0.37 0.33 0.33	83.2 84.9 87.4 85.5		02222	31 6M 6M 6M	54.9 61.5 58.3 58.3	55.4 60.1 58.1 58.1	2.3 6.4 4.6 4.1	
840925 K74322/POTAM 70 840926 EDWALLPULLMAN 840927 MCKAY 840928 K74135/POTAM 70 840929 K74182/POTAM 70	6/ WA7189 P1477919 C1017903 6/ WA7186 5/ WA7187	SWS SWS HRS SWS SWS	59.6 57.4 61.7 60.2 61.1	70.0 70.2 71.6 70.9	0.38 0.34 0.34 0.31	81.0 83.5 87.2 86.6	11.0 9.9 10.9 10.3	56.0 57.9 58.0 56.4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	58.2 57.3 60.5 58.4	57.2 57.4 59.6 59.7 57.6	2003 455 500 500 500 500 500 500 500 500 500	
840930 K74322/POTAM 70 840931 K74322/POTAM 70 840932 EDWALLROYAL SLOPE 840933 MCKAY 840934 K74135/POTAM 70	6/ WA7188 6/ WA7189 P1477919 C1017903 6/ WA7186	SWS SWS SWS HRS SWS	58.7 58.8 60.0 62.6 62.8	71.7 71.0 70.6 70.8	0.38 0.39 0.41 0.40 0.38	83.9 82.0 81.0 83.9 86.2	11.4 10.9 8.5 9.4 9.3	56.1 53.8 57.5 57.5	6M 8M 6M	59.2 57.8 53.0 58.6 58.4	57.8 56.9 54.5 59.2	4.2 4.7 4.7 4.2	
840935 K74182/POTAM 70 840936 K74322/POTAM 70 840937 K74322/POTAM 70	6/ WA7187 6/ WA7188 6/ WA7189	SWS SWS SWS	64.0 61.6 61.6	72.5	0.38 0.43 0.44	85.5 80.6 81.4	10.0 9.3 9.8	55.0 54.8 57.1	8 W W W W W W W W W W W W W W W W W W W	56.7 55.8 58.1	56.7 56.5 58.3	3.3	
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 10% Protein. 4/ Observed Values Corrected to 10% Protein.	Basis. 0% Protein.		5/ Part 6/ Prom	Particularly Promising Overall Promising Overall Quality Chara	y Prom	ising C Qualit	verall y Char	rly Promising Overall Quality Ch Overall Quality Characteristics	Quality Characteristics octeristics.	cteris	tics.		

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.		DUAL PURPOSE	RPOSE							CONTD. PAGE 1
NURSCO 34	LN	ND, PLMN, R.S.,	.S., WA							C.F. KONZAK
LABNUM VARIETY	IDNO	CLASS	LVOL	LVOLC B	LVOLC BCRGR CODI		IC CAVE	CODIC CAVOL SCSOR WTIN	WIIN	NOSCO RMKS
840920 EDWALLLIND 840921 MCKAY 840922 K74135/POTAM 70 840923 K74182/POTAM 70 840924 K74322/POTAM 70	P1477919 C1017903 WA7186 WA7187	SWS HRS SWS SWS SWS	965 1100 1005 1100	995 1013 993 1064 1028	5 8.72 1 8.01 2 8.72 1 8.79 2 8.69	<b>&amp;</b> & & & & & & & & & & & & & & & & & &	67 1320 12 1325 74 1325 85 1345 72 1325	81.0 81.0 82.0 78.0	381 370 385 370 362	70 68 69 69 68
840925 K74322/POTAM 70 840926 EDWALLPULLMAN 840927 MCKAY 840928 K74135/POTAM 70 840929 K74182/POTAM 70	WA7189 P1477919 C1017903 WA7186	SWS SWS HRS SWS SWS	1115 1020 1065 1070 1065	1055 1026 1009 1052	2222	62 8.7 77 8.7 19 8.6 96 8.9 73 8.8	73 1305 76 1285 26 1270 99 1270 82 1320	79.0	363 390 378 367 373	67Q-MSCOR&NOSCO 74 70 71Q-NOSCO 75
840930 K74322/POTAM 70 840931 K74322/POTAM 70 840932 EDWALLROYAL SLOPE 840933 MCKAY 840934 K74135/POTAM 70	WA7188 WA7189 P1477919 C1017903 WA7186	SWS SWS SWS HRS SWS	1000 1038 845 890 880	916 984 935 927	- 28 8 5 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	62 8.7 59 8.6 01 8.8 99 7.9 74 8.6	78 1250 69 1290 84 1280 94 1230	76.0	366 379 395 361 365	70Q-LVOL&NOSCO 71Q-MSCOR 80 73 72Q-NOSCO
840935 K74182/POTAM 70 840936 K74322/POTAM 70 840937 K74322/POTAM 70	WA7187 WA7188 WA7189	SWS SWS SWS	975 920 970	975 962 982	2 8.8	84 8.84 79 8.72 72 8.70	4 1230 2 1235 0 1270	76.0	375 371 369	73 710-MSCOR&FASH 750-MSCOR,FASH
COMMENTS: These soft white spring selections are equal to or	1	better than Edwall	Edwal]	in flou	in flour milling and cookie baking properties.	and co	okie ba	king pro	perties	They are also bette

also better than McKay in bread baking properties. They may be slightly poorer than Edwall in noodle making properties.

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NURSCO 36		LIND,	WA					E. DONALDSON	DSON
LABNUM	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MIYPE
840944 HATTON 840945 WESTON 840946 NEELEY 840947 MANNING 840948 WINRIDGE	C1017772 C1017727 C1017860 C1017846	HRW HRW HRW HRW	65.1 64.6 64.4 64.6 63.6	73.3 72.4 69.1 70.5	0.34 0.34 0.33 0.32 0.32	91.0 89.2 84.4 88.2	10.9	64.4 64.6 64.0 65.1 63.4	25 E E E E E E E E E E E E E E E E E E E
840949 HTN//SHORT WHEAT/SUT 840950 HTN SIB//SHORT WHEAT/SUT 840951 HTN SIB//SHORT WHEAT/SUT 840952 N7200043/CENTAURK 840953 N7200043/CENTAURK	N8200805 6/ N8200914 6/ N8200921 6/ N8201514 5/ N8201518	HRW HRW HRW HRW	64.2 64.5 64.3 65.3	69.5 73.1 75.2 74.1	0.32 0.32 0.32 0.34 0.34	86.3 92.3 95.7 92.1	10.3 9.9 9.4 10.2	62.6 64.7 63.2 62.4 63.0	H I I I I I I I I I I I I I I I I I I I
840954 N7000194/9342/101/TP/SPRA 840955 WA5514/1T//CER 840956 ALLEN#62/1D0092	6/ N8201802 6/ WA7269 6/ WA7270	HRW HRW HRW	64.1 64.9 64.1	73.9	0.35	91.1	9.6 10.6 10.4	61.7 64.1 61.6	1200
LABNUM	ONGI	CLASS	BABS	BABSC 3/	MTIME	TAOL	LVOLC 4/	BCRGR	RMKS
840944 HATTON 840945 WESTON 840946 NEELEY 840947 MANNING 840948 WINRIDGE	C1017772 C1017727 C1017860 C1017846 C1017902	HRW HRW HRW HRW	67.0 66.9 67.4 67.8 64.3	66.1 65.8 66.7 66.8 64.1	3.1 2.3 5.3	875 960 825 910	819 892 782 848 898	オケシオオ	
840949 HTN//SHORT WHEAT/SUT 840950 HTN SIB//SHORT WHEAT/SUT 840951 HTN SIB//SHORT WHEAT/SUT -840952 N7200043/CENFAURK 840953 N7200043/CENFAURK	N8200805 N8200914 N8200921 N8201514 N8201518	HRW HRW HRW HRW	63.6 64.8 62.3 64.3	63.3 64.9 62.9 64.1	2.50 2.50 2.50	845 830 825 830 900	826 836 862 818 819	2 6 6 6 8 2 6 6 6 8	P-BCRGR Equal Checks Equal Checks
840954 N7000194/9342/101/TP/SPRA 840955 WA5514/1T//CER 840956 ALLEN#62/1D0092	N8201802 WA7269 WA7270	HRW HRW HRW	63.0 66.4 64.7	63.4 65.8 64.3	3.7	800 845 890	825 808 865	6 0-6 5 Eq.	Q-BCRGR Equal Checks Equal Checks
$1/$ Observed Values Corrected to 10% Moisture Basis. $\frac{3}{4}/$ Absorption at 14% Moisture Corrected to 10% Protein. $\frac{4}{4}/$ Observed Values Corrected to 10% Protein.	asis. Frotein.		5/ Parti 6/ Promi	Particularly Promising Promising Overall Qual		Overall Quality Characteristics ity Characteristics.	ity Charac istics.	teristics.	

All selections are excellent in milling (except N8200805), but all, including the check varieties, are poor in baking. New selections appear equal in overall quality to the check varieties. COMMENTS:

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HERMISTON, OR USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA. NURSCO 37

NORSCO 31		nenial Ston,	, on							- 1
LABNUM	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	
840957 FW71001/63120-66-2/2/STARK 840958 FW71001/63120-66-2/2/STARK 840959 FW71001/63120-66-2/2/STARK 840960 FW71001/63120-66-2/2/STARK 840961 FW71001/63120-66-2/2/STARK	74706-301 74706-302 74706-307 74706-318 74706-319	HRW HRW HRW HRW	58.5 59.9 59.1 58.3	65.7 66.3 62.4 65.7 64.8	0.43 0.39 0.43 0.41	78.4 81.3 75.3 79.7	9.29	61.6 59.6 58.9 60.5 61.6	6M 8M 8M	
840962 67109/FR01D/2/P-101FW71002 840963 67109/FR01D/2/P-101FW71002 840964 67109/FR01D/2/P-101FW71002 840965 67109/FR01D/2/P-101FW71002 840966 67109/FR01D/2/P-101FW71002	7715956301 7715956305 7715956306 7715956307 7715956308	HRW HRW HRW HRW	60.3 60.7 61.3 61.4 60.8	61.6 63.7 62.6 61.2 59.7	0.41 0.43 0.39 0.39	75.2 76.5 77.5 76.1 74.5	888888 88889	57.4 57.8 57.9 57.4 56.8	ΣΣΣΣΣ	
840967 67109/FROID/2/P-101FW71002 840968 67109/FROID/2/P-101FW71002 840969 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840970 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840971 65116/MDM/2/CAMA/3/FW72001/ISRN-1342	7415956309 7415956314 7410376301 7410376302 7410376303	HRW HRW SRW HRW	60.8 60.4 59.7 60.8 61.3	61.8 62.1 63.8 60.0 61.2	0.40 0.39 0.40 0.38 0.38	76.1 76.9 77.1 75.1	9.52.2.6	56.6 56.1 56.2 56.2 57.2	44M 44M 33M 33M	
840972 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840973 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840974 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840975 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840976 UNKNOWN	7410376304 7410376305 741037-002 741037-003 TSN 8-2	HRW HRW HRW HRW	60.9 61.5 61.6 59.4 60.0	62.0 59.8 62.3 58.9 61.2	0.38 0.33 0.35 0.35	77.1 74.7 80.0 75.6	9.38	55.1 57.0 56.7 56.7	3M 4M 4L 4L 4M	
840977 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840978 67109/FROID/2/P-101/FW71002 840979 67109/FROID/2/P-101/FW71002 840980 STURDY	741037-006 771595G002 771595G011 C1013684	HRW HRW HRW	62.9 63.3 61.7 62.4	67.5 62.2 62.7 65.8	0.39 0.36 0.35 0.38	82.7 78.6 79.8 81.4	9.9	56.3 57.3 58.2 60.8	333M 34 34	
1/ Observed Values Corrected to 14% Moisture Basis	S.		5/ Parti	Particularly Pro	Promising Overall		Quality Characteristics	eristics.		1

<sup>6/</sup> Promising Overall Quality Characteristics.

 $\frac{3}{4}$  Absorption at 14% moisture Corrected to 9% Protein.  $\frac{3}{4}$  Observed Values Corrected to 9% Protein.

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		LVOLC 4/	)	730 703 824 732 728	737 727 762 747	761 744 803 783	741 737 634 586 643	584 615 624 636
		LVOL		780 715 855 775 765	725 715 750 735 755	755 750 815 795 785	760 725 560 605 680	640 565 550 810
		MTIME		7.7.0 7.1.0 7.1.0	20.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	22.38	33.01.5	2.6
		BABSC 3/	11	61.3 60.3 62.2 63.3	58.1 57.5 59.6 59.1 58.5	57.3 57.8 56.3 57.4 56.9	56.8 57.2 59.3 58.9 59.4	59.5 59.0 59.4 63.5
WHEAT	OR	BABS		62.1 60.5 61.1 62.9 63.9	57.9 57.3 59.4 58.9	57.2 567.9 56.5 57.6	57.1 57.0 58.1 59.2 60.0	60.4 58.2 58.2 66.3
RED WINTER WHEAT	HERMISTON,	CLASS		HRW HRW HRW HRW	HRW HRW HRW HRW	HRW HRW SRW HRW HRW	HRW HRW HRW HRW	HRW HRW HRW
REI	Ŧ	ONOI		74706-301 74706-302 74706-307 74706-318 74706-319	7715956301 7715956305 7715956306 7715956307 7715956308	7415956309 7415956314 7410376301 7410376302 7410376303	7410376304 7410376305 741037-002 741037-003 TSN B-2	741037-006 7715956002 7715956011 C1013684
USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.	NURSCO 37	LABNUM		840957 FW71001/63120-66-2/2/STARK 840958 FW71001/63120-66-2/2/STARK 840959 FW71001/63120-66-2/2/STARK 840960 FW71001/63120-66-2/2/STARK 840961 FW71001/63120-66-2/2/STARK	840962 67109/FR01D/2/P-101FW71002 840963 67109/FR01D/2/P-101FW71002 840964 67109/FR01D/2/P-101FW71002 840965 67109/FR01D/2/P-101FW71002 840966 67109/FR01D/2/P-101FW71002	840967 67109/FR01D/2/P-101FW71002 840968 67109/FR01D/2/P-101FW71002 840969 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840970 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840971 65116/MDM/2/CAMA/3/FW72001/ISRN-1342	840972 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840973 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840974 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840975 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840976 UNKNOWN	840977 65116/MDM/2/CAMA/3/FW72001/ISRN-1342 840978 67109/FR0ID/2/P-101/FW71002 840979 67109/FR0ID/2/P-101/FW71002 840980 STURDY
USD WES PUL	NUR	LAB		840 840 840 840 840	948 948 948 948	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	#88 #88 ##88	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

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in the baking test results between lines, but even the better lines such as 74706-307 and 741037G301 (also a soft red) are unsatisfactory All were 2-3% lower in protein than Sturdy, and too low to provide good confidence in the baking test results. There are some wide differences All lines in this group were abnormally poor in flour yield as judged from the check variety Sturdy's performance. in baking quality even when considering the low protein content. COMMENTS:

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IDNO CLASS TWT FYELD FASH MSCOR FPROT MABSC MTYPE	C1001442       HRW       59.2       68.0       0.39       80.5       11.5       62.2       6M         C1013844       HRW       61.2       71.2       0.38       85.2       10.9       62.0       8M         1D3518       HRW       55.7       68.2       0.40       78.3       11.1       61.3       6M         WA6816       HRW       58.5       67.8       0.42       78.0       10.5       62.0       4M         UT125327       HRW       60.6       68.8       0.39       81.1       11.1       61.6       6H	ORCR8107 HRW 60.7 69.2 0.41 81.5 11.8 62.1 4H ORCR8107 HRW 58.8 67.8 0.45 76.4 11.0 61.1 3H 6/D0259 HRW 60.9 69.9 0.41 81.6 11.6 64.9 5H ID0261 HRW 60.0 70.1 0.43 81.1 10.5 63.5 5H UT132569 HRW 59.6 70.1 0.41 82.2 10.9 62.7 8M	WA6820         HRW         60.5         68.3         0.41         79.5         11.1         61.2         8M           / i D0280         HRW         60.7         69.5         0.41         81.5         11.6         62.7         4H           / i D0281         HRW         60.3         68.6         0.40         79.9         11.0         63.0         6H           / i D0282         HRW         61.2         71.7         0.40         85.3         10.7         61.2         6M           / i D0283         HRW         60.1         71.1         0.40         83.9         10.9         64.6         5H	VUT132534         HRW         59.3         70.9         0.38         84.5         11.5         62.3         8M           WA7171         HRW         61.4         69.1         0.40         81.0         10.5         64.1         8M           WA7172         HRW         61.2         66.5         0.45         74.2         10.0         62.9         6M           WA7173         HRW         63.2         67.9         0.42         78.8         11.0         64.0         4H           ORCR8313         HRW         60.7         68.8         0.41         80.3         10.7         63.3         8M	01730875         SRW         59.1         64.7         0.35         75.9         10.0         57.4         2M           01602137         HRW         59.8         68.4         0.40         79.7         11.6         59.3         1H           MT77063         HRW         61.0         69.6         0.42         81.3         11.4         63.5         5H           MT7877         HRW         62.0         69.9         0.42         81.9         10.1         62.4         7M           VMT8003         HRW         61.1         69.3         0.37         83.2         10.8         62.6         8M	5/ Particularly Promising Overall Quality Characteristics.
	840981 KHARKOF 840982 WANSER 840983 WA4765/3/BEZOSTAJA//BURT/178383 ID3518 840984 ID5012/WA5866 840985 DLM/P1173438//CLM/3/DLM/4/C19342/IT/5/HN UT125327	840986 SM4/TD//3*IT/PI178383 840987 ALBA/GNS//FN/SONORA64 840988 JEFF/3/11-60-155/C114106//MC,A7389W-338-6/D0259 840989 BURT/C112929//DLM/4/NBR//NRN10/BVR/CNN/ ID0261 840990 WRR/C113837//PI173438//HANSEL	840991 GWB127/GWB236-7/STURDY 840992 11-60-155/2*C114107//RGR 840993 HNL///C114106/CLM//MC 840994 HCL/1D5006/3/C114106/CLM//MC/4/C114106/6/1D0282 840995 ATL50/4/R//2*CNN/3/4TK/5/SM4/4/BURT/35/1D0283	€	841001 7C/KARKAZ//NORD 841002 OR-ID SEL. F60213-76 841003 YOGO SS, 4662/4*CNN 841004 FRD/WN//MT6928/TDR 841005 REDWIN SEL.	1/ Observed Values Corrected to 14% Moisture Basis.

 $<sup>\</sup>frac{3}{4}$  Absorption at 14% Moisture Corrected to 11% Protein.  $\frac{4}{4}$  Observed Values Corrected to 11% Protein.

WESTERN REGIONAL HARD RED WINTER

NURSCO 38

ID, MT, OR, WA

BCRGR RMKS	4 2 P-MSCOR 6 P-MSCOR&BCRGR 6 P-MSCOR&BCRGR	3 Q-MSCOR&LVOL 7 P-FYELD&LVOL 3 Q-FYELD 6 P-BCRGR 9 P-LVOL&BCRGR	6 P-MSCOR, LVOL&BCRGR 2 Q-MILLING 3 Q-MILLING	4 Q-BCRGR 4 Q-MSCOR&BCRGR 3 VP-MILLING 4 P-MILLING 1 Q-MSCOR	6 VP-MILLINGSLVOL 8 B-HX80ARRCPSR 4 G-MSCORRLVOL 2
LVOLC 4/	917 897 889 931 959	845 815 948 941 856	854 906 915 909 1041	874 941 942 930 879	845 738 845 856 927
LVOL	945 890 895 900 965	895 815 985 910 850	860 943 915 890 1035	905 910 880 930 860	785 775 870 800 915
MTIME	4.3 6.2 6.1 6.1 6.1	84.00 0.00 0.00 7.	48.00 4.00 4.00 5.00 5.00 5.00 5.00 5.00 5	7.00.00 0.00.00 0.00.00	1.7 1.3 4.3 4.4
BABSC 3/	64.9 64.7 62.0 64.7 66.3	65.8 64.8 66.2 66.2	62.5 65.4 63.3 66.3	65.0 67.8 66.6 66.7 69.0	58.1 60.0 65.2 66.1 65.8
BABS	65.4 64.6 62.1 64.2 66.4	66.6 64.8 68.7 65.7 65.3	62.6 66.0 66.0 63.6 66.2	65.5 67.3 66.7 68.7	57.1 60.6 65.6 65.2 65.2
CLASS	HRW HRW HRW HRW	HRW HRW HRW HRW	HRW HRW HRW HRW	HRW HRW HRW HRW	SRW HRW HRW HRW
ONOI	C1001442 C1013844 ID3518 WA6816 UT125327	100242 0RCR8107 100259 100261 UT132569	WA6820 100280 100281 100282 100283	UT132534 WA7171 WA7172 WA7173 ORCR8313	01730875 01602137 MT77063 MT7877
VARIETY	KHARKOF WANSER WA4765/3/BEZOSTAJA//BURT/178383 1D5012/WA5866 DLM/P1173438//CLM/3/DLM/4/C19342/11/5/HN	SM4/TD//3*IT/P!178383 ALBA/GNS//FN/SONORA64 JEFF/3/II-60-155/C!14106//MC,A7389W-338- BURT/C!12929//DLM/4/NBR//NRN10/BVR/CNN/ WRR/C!13837//P!173438//HANSEL	GWB127/GWB236-7/STURDY 11-60-155/2*C114107//RGR HNL///C114106/CLM//MC HGL/1D5006/3/C114106/CLM//MC/4/C114106/ ATL50/4/R/R//2*CNN/3/4TK/5/SM4/4/BURT/3	WRR/C113837//P11783438/HNL C113438/BURT//SM7437/3/CER/4/P1173467/G C113438/BURT//SM7437/3/CER/4/P1167822/C C0696317/CERCO (N8101901) PROBSTORFER-EXTREM/T0866	7C/KARKAZ//NORD OR-1D SEL.F60213-76 YOGO SS,4662/4*CNN FRD/WN//MT6928/TDR REDWIN SEL.
LABNUM	840981 840982 840983 840984 840984	840986 840987 840988 840989 840989	840991 840992 840993 840994 840994	840996 840997 840998 840999 841000	841001 841002 841003 841004 841006

See Most of the entries in the nursery have serious deficiencies in milling and/or baking properties. Seed for analysis was composited with equal parts from Aberdeen, ID, Kalispell, MT, Stillwater, MT, Lind, WA, and Moro, OR. ID3518 was very low in test weight; 01730875 is soft textured and very short and weak in mixing properties; 10602137 is also very weak in dough mixing properties. "Remarks" column for most other deficiencies. COMMENTS:

P = Poor; Q = Questionable; VP = Very Poor

NURSCO	39		ID, MT,	, OR									
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE BAB	s BABSC	Σ	IME
841007 841007 841008 841009 841009	MCKAY POTAM 70/FIELDER FEDERATION OWENS WAVERLY	C1017903 WA6831 C1004734 C1017904	HRS SWS SWS SWS SWS	61.9 60.4 60.3 62.9 61.3	72.0 71.6 70.5 70.6 73.1	0.39 0.42 0.41 0.41	86.0 82.1 79.6 81.8	11.7 10.2 10.0 10.9	61.5 5H 57.8 3M 56.1 2M 56.9 2M	62.	9 63.	2 4	<b>a</b> .
841011 841012 841013 841014 841014	1 BORAH/3/MRN//PJ SIB/GB55,A744165-24-1 1D 2 1D0067*2/BB"5"RESEL,,A73341S-23-4 3 BB!!/4/7*SF1/3/AS/FR//A63167S-A-1-50-45-6/D 4 POTAM 70/F!ELDER 5 POTAM 70/F!ELDER	100238 100227 5-6/00246 WA6916 6/4A6918	HRS SWS SWS SWS	62.1 58.5 60.9 62.1 62.1	70.3 69.3 72.4 70.4 71.4	0.42 0.45 0.45 0.44 0.44	80.9 76.4 82.8 79.1	12.3 10.1 10.6 10.1	63.9 5H 54.9 2M 55.9 2M 56.5 3M 57.1 3M	65.	9 65.	. 9	7
841016 841017 841018 841019 841020	POTAM 70/FIELDER 7 POTAM 70/FIELDER 8 UTAH W498-259/PROSPUR 9 UTAH W498-165/BORAH 7 ABERDEEN SELECTION	WA6919 WA6920 6/UT0209 UT2746 5/ID0248	SWS SWS HRS HRS	61.5 61.7 59.5 61.2	70.4 70.3 71.8 70.3	0.45 0.45 0.42 0.39 0.43	78.1 77.5 83.3 83.4 82.2	10.9 10.6 12.5 12.5	56.6 3M 57.5 4M 64.9 7H 62.9 4H 56.8 3M	67.1	66.	6 7.	ω N
841021 841022 841023 841024 841025	ABERDEEN SELECTION ABERDEEN SELECTION ST5958/ARANA, ORS6558 CTK/CNO//EMU, ORS750573 HORK/YMH/KA//BB, ORS791432	6/100249 0RS8411 0RS8412 0RS8412	SWS HRS HRS HWS	61.2 63.3 60.8 59.6 61.8	71.9 72.8 67.3 67.4 72.9	0.44 0.39 0.44 0.46	80.4 87.1 76.1 75.2 81.2	10.3 13.5 11.4 12.8	56.2 2M 65.9 7H 63.1 4H 63.9 5H 61.6 5H	69.1 65.3 67.4 64.7	67.6 65.9 66.6 65.3	33.	mm # 80
841026 841027 841028 841029 841030	POTAM 70/FIELDER POTAM 70/FIELDER K73579/BORAH ABERDEEN SELECTION ABERDEEN SELECTION	WA7073 WA7074 6/WA7075 100269 6/100271	SWS SWS HRS HRS	61.4 62.1 60.7 62.4 63.0	70.4 70.0 71.0 71.3	0.44 0.45 0.42 0.36	79.5 77.8 83.4 86.3	11.1	57.8 3M 57.9 3M 65.3 4H 65.1 6H 65.6 5H	67.7 68.0 69.1	67.1 67.8 68.3	. n.n.a.	247
841031 841032 841033 841034 841035	ABERDEEN SELECTION ABERDEEN SELECTION ABERDEEN SELECTION ABERDEEN SELECTION PV18A/CIANO	100232 5/100266 5/100285 100286 6/0RS8414	SWS SWS SWS SWS HRS	60.9 63.7 64.0 61.6 62.0	71.0 72.1 72.2 70.3	0.43 0.38 0.40 0.40	79.8 85.1 79.8 83.7	10.8 10.6 11.2 12.4	55.8 2M 55.9 2M 55.3 2M 57.7 2H 63.1 4H	66.2	65.8	m	6
841036 841037 841038 841039 841040	MINIVET SIB UTW498-165/WA6158 UTW498-165/WA6158 PWL/PDA	0RS8415 6/UT251294 UT251303 UT001376 UT001382	HRS HRS HRS HRS	63.7 62.5 61.9 56.0	69.0 73.0 72.3 67.2 64.9	0.43 0.41 0.41 0.45 0.46	79.2 85.9 85.5 75.1	13.0 12.6 12.3 12.6	66.4 5H 63.2 4H 63.5 4H 64.2 4H 62.5 5H	70.1 66.5 66.5 67.5 65.8	69.1 66.2 66.2 66.3	26622	20 7 5 6
1/ Obse	1/ Observed Values Corrected to 14% Moisture Basis.			5/ Par	rticula	rlv Prom	misina	Overall	Onality	Characteri	iction		

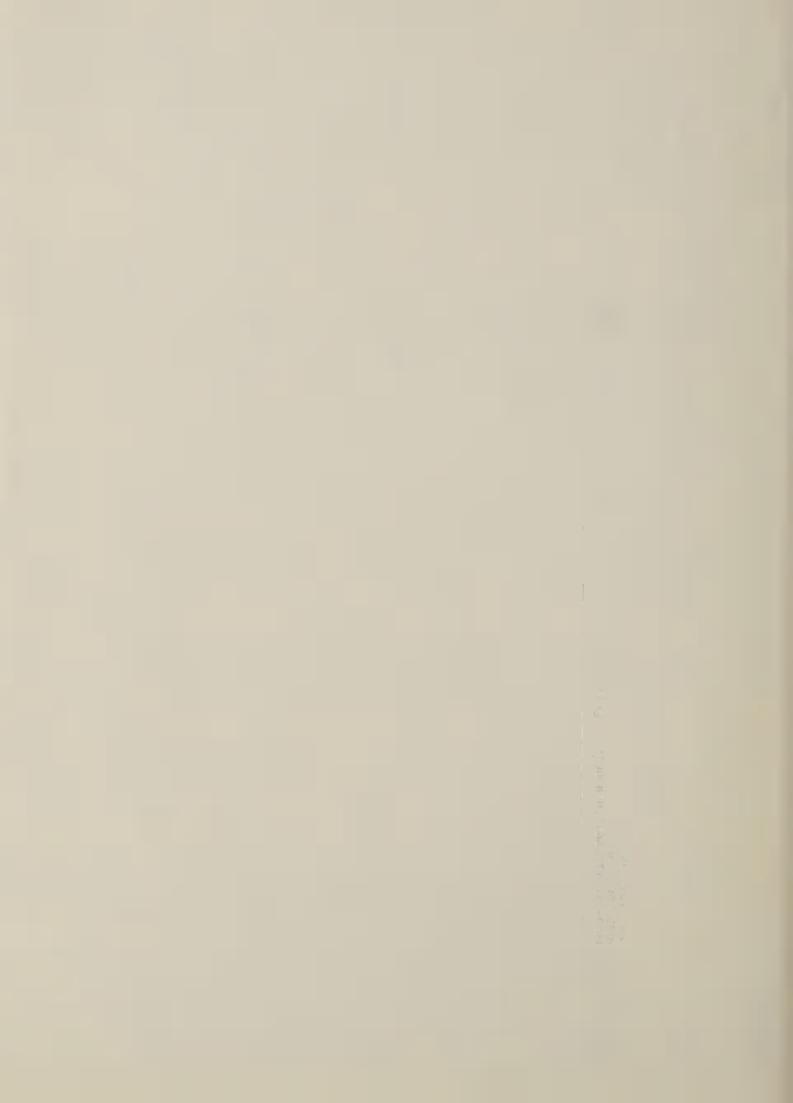
<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 12% Protein. 4/ Observed Values Corrected to 12% Protein.

<sup>5/</sup> Particularly Promising Overall Quality Characteristics.
6/ Promising Overall Quality Characteristics.

WESTERN REGIONAL SPRING WHEAT

Q-LVOL P-LVOL&BCRGR P-FYELD,LVOL&BCRGR P-FYELD,LVOL&BCRGR VP-FYELD, LVOL&BCRGR VP-FYELD, LVOL&BCRGR 75 P-MSCOR Q-SCSOR 72 72 Q-MILLING&NOSCO 80 Q-MILLING Excellent Baking P-LVOL&BCRGR P-FYELD, LVOL O-MILLING 76 Q-MILLING 81 Q-MILLING Q-LVOL 78 Q-MILLING 76 Q-MILLING Q-FYELD NOSCO RMKS P-BCRGR 10/1-0 73 79 79 91 75 74 78 78 78 373 372 394 385 WILM 371 376 380 383 379 385 394 392 395 384 395 387 SCSOR 79.0 78.0 78.0 73.0 79.0 76.0 74.0 73.0 76.0 79.0 76.0 72.0 77.0 74.0 79.0 CODIC CAVOL 1280 1270 1300 1250 1300 1260 1240 1230 1260 1280 1265 1250 1215 1290 1240 1280 7.83 8.46 8.29 8.83 8.67 85 78 68 62 62 8.54 8.47 7.93 7.73 8.75 8.63 7.39 7.45 7.50 8.51 8.60 7.67 7.75 8.67 8.79 8.81 8.96 7.69 4 7.48 7.95 7.90 7.59 ~ 8 8 8 8 7.85 8.66 8.44 9.05 000 82 99 84 65 76 8.66 8.62 7.89 7.69 8.94 8.82 7.71 7.44 7.55 8.61 8.71 7.62 7.64 7.69 40 90 10 10 10 10 8.81 8.97 8.96 9.05 7.66 ~ & & & & & LVOLC BCRGR 2 20 2500 ろける S SUNDER 1049 1036 1034 942 880 977 1003 943 965 978 886 868 918 4 LVOL 1030 1055 1065 930 105 955 1025 1015 905 905 955 1005 ID, MT, OR CLASS HRS SWS SWS SWS SWS HRS SWS SWS SWS SWS SWS SWS HRS HRS SWS SWS HRS HRS HRS SWS HRS HRS HRS SWS SWS SWS HRS HRS HRS HRS HRS C1004734 C1017904 C1017911 UT251294 UT251303 UT001376 UT001382 C1017903 100232 100266 100285 100286 0RS8414 ORS8415 100238 100227 100246 WA6916 WA6918 ORS8413 UT0209 UT2746 ID0248 ORS8411 ORS8412 I DNO WA6919 WA6920 100249 WA7075 1D0269 1D0271 WA6831 WA7073 WA7074 BORAH/3/MRN//PJ SIB/GB55,A744165-24-1 1D0067\*2/BB"5"RESEL,A73341S-23-4 BB!!/4/7\*SF1/3/AS/FR//A63167S-A-1-50-45-POTAM 70/F!ELDER POTAM 70/F!ELDER HORK/YMH/KA//88, ORS791432 VARIETY 5 POTAM 70/FIELDER 7 POTAM 70/FIELDER 8 UTAH W498-259/PROSPUR 9 UTAH W498-165/BORAH 1 ABERDEEN SELECTION ST5958/ARANA, ORS6558 CTK/CNO//EMU, ORS750573 SELECTION SELECTION SELECTION SELECTION ABERDEEN SELECTION ABERDEEN SELECTION K73579/BORAH ABERDEEN SELECTION ABERDEEN SELECTION UTW498-165/WA6158 UTW498-165/WA6158 POTAM 70/FIELDER POTAM 70/FIELDER POTAM 70/FIELDER FEDERATION ABERDEEN SEL ABERDEEN SEL PV18A/CIANO MINIVET SIB ABERDEEN ABERDEEN PWL/PDA PWL/PDA WAVERLY OWENS 841016 841017 841018 841019 841020 841011 841012 841013 841014 841015 841006 841007 841008 841009 841010 841021 841022 841023 841024 841024 841026 841027 841028 841029 841030 841031 841032 -841033 841034 841035 841036 841037 841038 841039 841040 NURSCO LABNUM

	MTIME		4.5	4.0
	BABSC M	3/	64.2	70.5
	BABS		9.49	71.3
	MABSC MTYPE			.3 5H .2 3M
	OT MA	_		8 66.3
	R FPROT	-1		12.8
	MSCOR		86.1	78.2
	FASH	7	0.42	0.49
	FYELD		72.6	70.0
, OR	TWT		62.4	61.3
ID, MT, OR	CLASS		HRS	HRS
	ONGI		WA7181	WA 7182 6/ WA 7183
	VARIETY		84200	841043 K78504/K79129-33//K7806645, HF830055
0 39			841041 K73772/BORAH, K7900748	041042 K/4153/K/4093,K8000946 841043 K78504/K79129-33//K7806
NURSCO 39	LABNUM		84104	84104

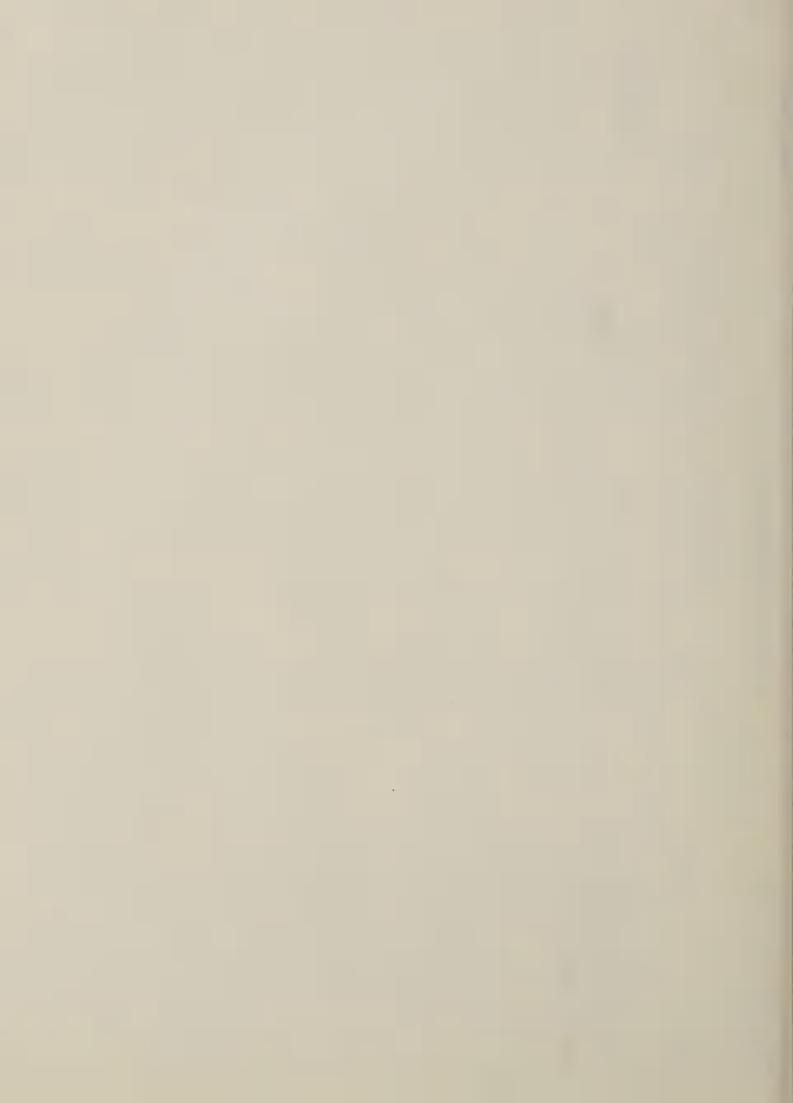


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NURSCO 39

NURSCO 39			ID, MT, OR	, OR								
LABNUM	VARIETY	1 DNO	CLASS	CLASS LVOL	LVOLC BCRGR CODI	CRGR 0	1000	2001C 0	SAVOL	SCSOR WI	Z Z	CODIC CAVOL SCSOR WTIN NOSCO RMKS
841041 K73772/BOR 841042 K74153/K74 841043 K78504/K79	841041 K73772/BORAH,K7900748 841042 K74153/K74093,K8000946 841043 K78504/K79129-33//K7806645,HF830055	WA7181 WA7182 WA7183	HRS HRS SWS	910	885 953	27.0	7.64	7.67 7.45 8.63	1200	71.0 3	386	P-LVOL&BCRGR P-MSCOR,BCRGR

COMMENTS: Composited from equal parts of nurseries grown at Aberdeen, ID; Kalispell and Bozeman, MT; Ontario, OR.



NURSCO 40		ON	ONTARIO,	OR					e e	M.J. KOLDING	I NG
LABNUM VARIETY	IDNO	Ö	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT	MABSC 3/	MTYPE	BABS
841044 WAVERLY 841045 DIRKWIN 841046 TWIN 841047 OWENS 841048 PROBRAND 751	C1017911 C1017745 C1014588 C1017904		SWS SWS SWS SWS HRS	61.2 59.6 59.6 63.6	72.8 71.6 70.0 70.6	0.45 0.46 0.48 0.42	85.2 83.0 79.3 84.1 87.4	10.2 9.8 9.2 9.2	57.8 53.0 52.3 63.5	SZ S	0.419
841049 PAVON 76 841050 BUCK BUCK S 841051 MPC770926 841052 NCV1 SA0879/4 841053 MPC770302		79	HRS HRS SRS SRS	62.8 62.8 61.6 62.4 65.2	68.5 69.3 67.2 70.7 68.1	0.45 0.41 0.46 0.46 0.38	80.4 83.1 78.3 84.8 83.6	11.1 10.3 10.8 10.9	59.8 61.4 59.6 51.5	9 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	62.6 62.4 62.1
841054 PC790508 841055 WAID (DURUM) 841056 BOB WHITE S' 841057 PC790501 841058 KBWN750020		70111	HWS DURM HRS HRS	63.6 63.2 64.0 64.8 63.6	70.1 53.2 66.7 68.5 68.8	0.39 0.61 0.41 0.37	85.0 56.2 80.6 82.8 85.0	10.9	62.3 60.4 59.7 63.3 62.8	88M 1H 5H 4H	62.9 62.1 66.1 64.7
841059 VT80011 (TRITICALE) 841060 PC791423 841061 SWM6253 841062 MPC770062 841064 SWM6367		) 1 / 9 1 / 8 1 / 8	TRIT HWS SWS HWS SRS	53.0 63.6 61.6 63.6 60.8	62.0 72.3 71.4 69.1 67.4	0.49 0.48 0.44 0.41 0.41	71.6 82.9 84.0 83.3 78.1	10.2 10.6 10.2 11.2	57.5 61.8 53.5 61.6	31 44 64 24 27	62.1
841065 TITMOUSE 'S' 841066 AZT/PVN S' 841067 KVZ/TRM/2/PRM/ANA 841068 JUP/BJY 841069 FR/FN//Y/4/FR//U/TH/3/MT/5/CHA	0.58422 0.58424 0.58424 0.58425 0.58426	79 /9	HRS HRS HRS SWS	64.8 64.4 65.6 65.2 63.2	68.6 69.9 69.5 65.2 69.6	0.39 0.36 0.40 0.36	83.8 86.6 84.3 81.5	11.9 12.5 12.0 10.6	66.4 62.9 65.4 64.8	4H 5H 6H 3H	68.5 67.1 65.1 68.5 63.0
841070 JUN S' 841071 CMT/MO/2/TRM 841072 CMT/YR/2/MON 841073 RSV 50/CAN/2/VEE	058427 058428 058423 058430	8 8 8 8	SWS SWS SWS	64.0 64.0 62.8 62.8	70.6 67.7 66.2 67.2	0.40 0.42 0.42 0.50	85.3 80.6 78.7 74.9	10.9 9.6 10.3 10.4	59.3 57.8 56.2 57.3	5H 4M 2M 2M	60.9
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 11% Protein. 4/ Observed Values Corrected to 11% Protein.	ure Basis. 5 11% Protein.				5/ Part 6/ Prom	Particularly Promising Ove	ly Promising Overall Quali	sing Overall Quality Ch Quality Characteristics	Quality C	aracteri	stics.

<sup>1/</sup> Ubserved Values Corrected to 14% Moisture Basis.  $\frac{3}{4}$  Absorption at 14% Moisture Corrected to 11% Protein.  $\frac{4}{4}$  Observed Values Corrected to 11% Protein.

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NURSCO 40			ONTARIO,	OR					Σ	M.J. KOLDING
LABNUM	VARIETY	I DNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	1000	CODIC RMKS
841044 WAVERLY 841045 DIRKWIN 841046 TWIN 841047 OWENS 841048 PROBRAND 751		C1017911 C1017745 C1014588 C1017904	SWS SWS SWS SWS HRS	64.2	4.3	1000	1012	ю	9.34 9.01 9.10 9.47	9.25
841049 PAVON 76 841050 BUCK BUCK S 841051 MPC770926 841052 NCV1 SA0879/4 8411053 MPC770302			HRS HRS HRS SRS HRS	62.5 63.1 63.5	4.0 2.3 4.7	930 930 875 945	924 973 887 933	7 654	9.27	P-FYELD&LVOL P-FYELD&LVOL VP-FYELD&LVOL 9.26 Note - Red P-BCRGR
841054 PC790508 841055 WAID (DURUM) 841056 BOB WHITE S' 841057 PC790501 841058 KBWN750020			HWS DURM HRS HRS	63.0 62.4 65.0 64.5	4.6 4.3 3.4	935 770 1030 930	941 789 962 918	2257 #		Q-BCRGR DURUM P-FYELD,LVOL,BCRGR Q-MILLING P-BCRGR
841059 VT80011 (TRITICALE) 841060 PC791423 841061 SWM6253 841062 MPC770062 841064 SWM6367	ICALE)		TRIT HWS SWS HWS SRS	62.5	3.9	920	945	m m	8.32 9.17 8.72	8.26 9.09 Q-FYELD&LVOL 8.69 P-FYELD&CODI
841065 TITMOUSE S' 841066 AZI/PVN S' 841067 KVZ/TRM/2/PRM/ANA 841068 JUP/BJY 841069 FR/FN//Y/4/FR//U/	TITMOUSE S' AZI/PVN S' KVZ/TRM/2/PRM/ANA JUP/BJY FR/FN//Y/4/FR//U/TH/3/MI/5/CHA	058422 058423 058424 058425 058426	HRS HRS HRS SWS	67.6 65.6 65.1 67.5 63.4	25.23.20	950 960 880 800 985	894 867 880 738 1009	22000	8.81	Q-FYELD&LVOL Q-LVOL P-MTIME,LVOL&BCRGR P-FYELD&LVOL 8.77 DUAL PURPOSE
841070 JUN S' 841071 CMT/MO/2/TRM 841072 CMT/YR/2/MON 841073 RSV 50/CAN/2/VEE	VEE	0S8427 0S8428 0S8423 0S8430	SWS SWS SWS SWS	61.0	5.8	985	991	2	8.97 9.36 8.92 8.84	8.96 DUAL PURPOSE 9.21 P-FYELD 8.85 P-FYELD 8.77 P-FYELD

0S8426 and 0S8427 appear to have possible dual purpose characteristics, probably better suited for bread baking than pastry COMMENTS: This nursery contains HRS, SWS, HWS, SRS, Durum, and Triticale. Those footnoted have some potential for acceptance in overall use. See "Remarks" for major deficiencies. quality.

P = Poor; VP= Very Poor; Q = Questionable

M.J. KOLDING

ONTARIO, OR

NURSCO 41

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841074 STEPHENS 841075 MCDERMID 841076 DAWS 841077 HILL 81 841078 FW741037-87	C1017596 C1014565 C1017419 C1017954	SWW SWW SWW SWW SKW	77.5 74.5 72.1 77.1	0.47 0.46 0.46 0.46 0.37	89.9 86.8 83.6 90.0	9.9 9.9 9.4	53.1 56.2 57.4 53.2 58.1	ZM 3L 5M 2M 3MSoft Red
841079 FW741037-002 841080 FW741037-003 841081 ISN B-2 841082 FW741037-06 841083 FW75344-104		SRW SRW 6/ HRW SRW HRW	70.1 70.7 76.3 70.6	0.36 0.35 0.37 0.33	87.0 87.6 92.6 88.7	8.8 9.0 10.3 9.2	57.2 58.1 59.3 56.6	3LSoft Red ULSoft Red UM 3LSoft Red 2M Short Mixing
841084 FW75344-106 841085 SWM731368 841086 SWM783787 841087 HRELT-9	CR-08 CR-60	HRW 6/SWW SWW 5/SWW 6/HRW	72.7 72.5 69.1 76.3	0.41 0.43 0.42 0.44 0.39	87.1 86.0 82.3 90.1 86.9	9.5 10.0 8.9 9.2	55.9 54.8 59.0 54.2 58.0	2M Short Mixing 2L 5M Low Fyeld, Soft 2M 3M
841089 FW73541-010 841090 FW771060603 841091 FW741595608 841092 FW741595602 841093 FW741595011		6/ HRW SWW SRW SRW SRW	70.1 71.9 69.2 70.1 69.5	0.38 0.41 0.43 0.39	85.8 86.3 81.9 85.4 86.3	9.5 9.3 9.2	60.6 60.0 56.2 59.4 60.9	3M Q-FYELD 4M 2M Q-FYELD 4M Soft
841094 STURDY 841095 TSN-81 841096 1982 MRAY26 841097 SWM7308650P	C1013684	HRW 6/ HRW 16W HRW HRW	73.4 73.4 72.0 69.5	0.39 0.39 0.39 0.37	88.9 88.5 87.2 85.6	10.5	60.3 57.3 57.8 59.6	4Н 3М 2H Q-FYELD, Short Mixing

These samples were too small in size to provide enough flour for baking tests. The red wheats were judged for texture and dough properties needed for bread wheats. Several had soft endosperm and/or very short and weak dough mixing properties. The soft white wheats were judged for traditional pastry properties. Those selections that have promise are footnoted. COMMENTS:

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 42

LABNUM	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	F PROT	MABSC 3/	MTYPE	BABS
841098 HILL 81 (C1017954) 841099 HILL 81 (C1017954) 841100 HILL 81 (C1017954) 841101 HILL 81 (C1017954) 841102 HILL 81 (C1017954)	W-30-50 W-30-100 W-30-150 W-60-50 W-60-100	MMS MMS MMS MMS	62.4 62.0 60.0 61.6 62.4	72.4 72.2 69.1 72.1	0.40 0.39 0.41 0.41	87.8 87.9 83.2 86.9	6.8 7.4 9.3 6.6	50.9 52.0 52.0 52.2	3L 4M 3L 3L	
HILL 81 HILL 81 HILL 81 HILL 81	W-60-150 W-90-50 W-90-100 W-90-150	MMS MMS MMS MMS	62.4 62.8 62.0 62.4 61.6	72.0 72.0 71.2 72.5	0.38 0.37 0.37 0.38	88.9 88.9 88.4 89.0	8.4 7.1 7.9 8.6 7.0	49.3 52.2 50.9 50.6 51.9	33M 4L 31 31	
841108 HILL 81 (CI017954) 841109 HILL 81 (CI017954) 841110 ORCR8313 841111 ORCR8313 841112 ORCR8313	W-150-100 W-150-150 R-30-50 R-30-100 R-30-150	SWW SWW HRW HRW HRW	63.6 62.8 64.4 64.4	72.6 72.4 67.6 67.0	0.38 0.37 0.38 0.38	89.4 89.6 83.2 82.6 81.4	8.0 8.6 7.4 8.1	50.7 59.2 58.2 59.7	33L 88L 88L	60.3 60.0 63.7
841113 ORCR8313 841114 ORCR8313 841115 ORCR8313 841116 ORCR8313 841117 ORCR8313	R-60-50 R-60-100 R-60-150 R-90-50	HRW HRW HRW HRW	63.6 64.0 64.0 65.6 62.4	66.5 67.3 68.6 68.2 68.1	0.38 0.37 0.36 0.38	883.3 83.8 83.8	7.3 8.6 9.7 8.0 9.0	58.0 59.4 59.6 58.3	38 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	59.0 60.7 63.0 60.0 61.5
841118 ORCR8313 841119 ORCR8313 841120 ORCR8313 841121 ORCR8313	R-90-150 R-150-50 R-150-100 R-150-150	HRW HRW HRW HRW	63.6 64.4 64.0 63.6	68.6 67.5 68.4 68.4	0.37 0.38 0.37 0.35	84.7 83.0 84.2 85.7	9.9	58.9 58.8 58.3	88 88 8M	62.5 60.3 61.3 62.9

<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis.  $\frac{3}{4}/$  Absorption at 14% Moisture Corrected to 8% Protein.  $\frac{4}{4}/$  Observed Values Corrected to 8% Protein.

<sup>5/</sup> Particularly Promising Overall Quality Char 6/ Promising Overall Quality Characteristics.

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 42		CORVALLIS,	, 0R					3	W.E. KRONSTAD	тар
LABNUM VARIETY	ONO	CLASS	BABSC 3/	MTIME	TAOL	LVOLC 4/	BCRGR	CODI	CODIC	RMKS
841098 HILL 81 (C1017954) 841099 HILL 81 (C1017954) 841100 HILL 81 (C1017954) 841101 HILL 81 (C1017954) 841102 HILL 81 (C1017954)	W-30-50 W-30-100 W-30-150 W-60-50	MMS MMS MMS						9.31 9.46 9.26 9.12 9.42	9.18 9.40 9.41 8.97 9.36	
841103 HILL 81 (C1017954) 841104 HILL 81 (C1017954) 841105 HILL 81 (C1017954) 841106 HILL 81 (C1017954) 841107 HILL 81 (C1017954)	W-60-150 W-90-50 W-90-100 W-90-150	MMS MMS MMS MMS						9.42 9.29 9.31 9.32	9.16 9.33 9.28 9.38	
841108 HILL 81 (C1017954) 841109 HILL 81 (C1017954) 841110 ORCR8313 841111 ORCR8313 8411112 ORCR8313	W-150-100 W-150-150 R-30-50 R-30-100 R-30-150	SWW SWW HRW HRW HRW	60.9 59.9 61.4	8.3	615 665 790	652 659 647	887	9.49	9.49	
841113 ORCR8313 841114 ORCR8313 841115 ORCR8313 841116 ORCR8313	R-60-50 R-60-100 R-60-150 R-90-50	HRW HRW HRW HRW	59.7 60.1 61.3 60.0	9.9 7.0 6.2 6.9	545 660 730 580 675	588 623 625 580 613	67487			
841118 ORCR8313 841119 ORCR8313 841120 ORCR8313 841121 ORCR8313	R-90-150 R-150-50 R-150-100 R-150-150	HRW HRW HRW HRW	60.6 60.5 60.0 60.6	5.75	740 600 685 785	622 612 604 642	46684			

This fertility study showed small increases in flour protein content with increased fertilizer. Cookie diameter response did not follow flour protein. The HRW (ORCR8313) used in the study is poor in flour yield, loaf volume, and bread crumb grain. Loaf volume generally responded to the protein, but all are very unsatisfactory.

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W.E. KRONSTAD	CODIC MTYPE RMKS	.03 1L .97 1L .90 1L .75 2L	74 2L .66 1L .86 2L 8L 8L 8L 8L 8L 8L 8L 8L 8L 8L	8L
	MSCOR FPROT MABSC CODI C	7 9.14 9 2 9.02 8 7 8.91 8 5 8.76 8 8.72 8	8 8.77 8 8.99 8.99 8.99 8.99 8.99 8.99 8	ħ
	OT MAE	0 54. 5 55. 9 54. 8 54.	55 50 50 50 50 50 50 50 50 50 50 50 50 5	4.09
	IR FPRC	00000	99.7. 7.8.8.8.9.9.9.9.9.9.9.9.9.9.9.9.9.9.9.9.	7.7
	MSCO	86.5 84.0 80.0 80.0 81.2	80.6 84.7 84.1 81.3 77.7 78.7 72.5 72.5 76.4	78.6
	FYELD FASH	0.37 0.38 0.39 0.38	0.39 0.37 0.37 0.40 0.40 0.43 0.43	0.40
~	FYELD	69.8 68.5 65.9 65.3 66.1	66.1 68.8 68.3 65.6 63.6 64.1 59.9 62.3	64.2
ARM, O	TWT	62.0 64.0 64.4 63.6	64.0 64.0 65.2 64.4 64.8 64.8 65.2 65.2 65.2	65.2
ANDERSON FARM, OR	CLASS	MMS MMS MMS MMS	SWW SWW SWW HRW HRW HRW HRW HRW	HRW
ANI	IDNO	W-0-0 W-45-0 W-90-0 W-135-0	M-45-40 W-45-60 W-9-40 R-0-0 R-45-0 R-45-0 R-45-20 R-45-40 R-45-60	R-90-40
NURSCO 43	LABNUM	841122 HILL 81 (C1017954) 841123 HILL 81 (C1017954) 841124 HILL 81 (C1017954) 841125 HILL 81 (C1017954) 841126 HILL 81 (C1017954)	841127 HILL 81 (C1017954) 841128 HILL 81 (C1017954) 841129 HILL 81 (C1017954) 841131 ORCR8313 841132 ORCR8313 841132 ORCR8313 841135 ORCR8313 841135 ORCR8313	841137 ORCR8313

1/ Observed Values Corrected to 14% Moisture Basis.

 $\underline{3}/$  Absorption at 14% Moisture Corrected to 7% Protein.  $\underline{4}/$  Observed Values Corrected to 7% Protein.

 $\underline{5}/$  Particularly Promising Overall Quality Characteristics.  $\underline{6}/$  Promising Overall Quality Characteristics.

Due to the poor baking performance obtained with ORCR8313 in NURCO 042 (Hyslop Farm Fertility Study) and the extremely low protein in this study no bread baking was done. Small responses in flour protein is observed with increasing fertilizer levels. COMMENTS:

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN WA	SPRING	SPRING WHEAT FERTILITY TRIAL	TILITY TR	IAL					PAGE
NURSCO 44		MADRAS, OR	OR					A. LORENZO	024
LABNUM VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYP
841138 BUCK PUCARA 841139 BUCK MAPUCHE	5/ AL15 6/ AL16	HRS	62.8	6.69	0.40	84.6	11.8	68.7	5H 4H
841140 V762 841141 V881 841142 V882	2/ AL11 AL13 AL14	HRS HRS SRS	59.5 60.4 60.8	69.0 66.4 60.8	0.43	79.7	13.5	69.3	3H 3H
841143 CB3297 841144 CB1296 841145 CB4650 841146 CB4659	5/ AL17 AL18 5/ AL19 6/ AL20	HRS SRS HRS HRS	63.6 60.0 62.8 64.0	70.0 67.6 69.6 68.9	0.39 0.40 0.38 0.44	84.9 82.2 85.1 81.2	13.5	65.7 62.5 68.0 66.2	4H 4H 4H 3H
1/ Observed Values Corrected to 14% Moisture Basis. $3/$ Absorption at 14% Moisture Corrected to 13% Protein.	cure Basis.		5/ Part 6/ Prom	icularly P	5/ Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.	verall Qual y Character	lity Charac istics.	teristics.	

4/ Observed Values Corrected to 13% Protein.

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USDA, SEA AR WESTERN WHEAT QUALITY LAB.	LAB.	SPRING	WHEAT FERTILITY TRIAL	ILITY TRI	AL				CONID. PAGE
NURSCO 44			MADRAS, OR	OR					A. LORENZO
LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	TAOL	LVOLC 4/	BCRGR RMKS
841138 BUCK PUCARA 841139 BUCK MAPUCHE 841140 V762 841141 V881 841142 V882		AL15 AL16 AL11 AL13 AL14	HRS HRS HRS SRS	69.2 68.9 70.5 64.4 69.5	70.4 69.2 68.4 63.9 69.0	4.7 3.6 1.0 2.2	1040 1050 1145 770 1065	1114 1069 1015 739 1034	2 2 9 P-FYELD, LVOL&BCRGR 4 VP-FYELD, Q-BCRGR
841144 CB1296 841144 CB1296 841145 CB4650 841146 CB4659		AL17 AL18 AL20	HRS SRS HRS HRS	65.4 66.2 71.8 68.2	65.7 69.7 67.9		1015 905 1215 1085	1108 874 1085 1066	2 2 2 2

COMMENTS: V762 has high protein but of lower functional baking quality. V881 has poor flour yield, dough mixing properties, and bread baking characteristics. V882 is soft textured and very poor milling but fair baking properties. CB1296 has questionable flour yield and soft endosperm with poor bread baking properties. All other lines have acceptable overall milling and baking properties.

P = Poor; VP = Very Poor; Q = Questionable

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NURSCO 45		S	CORVALLIS,	OR					A. LORENZO	02
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
841147 WANSER 841148 BOUNTY 841149 BUCK-17 841150 ORCR8313		C1013844 VM082754 85HRELT6 85HRELT11	HRW HRW HRW HRW	62.4 54.4 64.0 62.4	70.4 68.6 69.1 67.1 66.8	0.38 0.38 0.38 0.36	87.8 83.9 84.7 83.4	9.9	64.3 63.7 68.6 66.6 67.3	6M 44H 77H 57H
841152 ORCR8512 841153 SWM754202*-02P-2M-1P-0H 841154 SWM753876*-04P-1H-1H-0P	PM-1P-0H	85HRELT12 85HRRAN6 85HRRAN9	HRW HRW HRW	61.2 63.6 62.8	69.3 71.0 68.8	0.41	83.3	11.5	66.5 65.8 59.2	5H 5H 3M
LABNUM	VARIETY	ONGI	CLASS	BABS	BABSC	MTIME	TAOL	LVOLC	BCRGR	RMKS
841147 WANSER 841148 BOUNTY 841149 BUCK-17 841150 ORCR8313		C1013844 VM082754 85HRELT6 85HRELT11	HRW HRW HRW HRW	64.9 66.0 74.0 70.0	66.0 65.4 71.8 69.3 70.0	4.5 3.6 6.4 6.6	872 925 940 915	948 888 804 872 899	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	P-FYELD Q-LVOL Q-LVOL
841152 ORCR8512 841153 SWM754202*-02P-2M-1P-0H 841154 SWM753876*-04P-1H-1H-0P	2M-1P-0H 1H-1H-0P	85HRELT12 85HRRAN6 85HRRAN9	HRW HRW HRW	69.7 68.8 60.9	69.2 68.5 60.9	1.8	910 955 740	879 936 740	2 2 9 VP-	VP-LVOL&BCRGR
1/ Observed Values Corrected to 14% Moisture $3/$ Absorption at 14% Moisture Corrected to 14/ Observed Values Corrected to 11% Protein.	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 11% Protein. 4/ Observed Values Corrected to 11% Protein.	in.			5/ Particular 6/ Promising	cularly Pr sing Overa	Particularly Promising Overall Quality Characteristics Promising Overall Quality Characteristics.	erall Qual Character	ity Charactistics.	eristics.

ORCR8313 and ORCR8511 are low in flour yield. In relation to the 13.2% protein content of Buck-17 the loaf volume is below expected level. SWM753876\*-04P-1H-1H-0P selection is extremely poor in all baking properties. COMMENTS:

Q = Questionable; P = Poor; VP = Very Poor

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

LABNUM	582-02 6/582-07 6/582-07 6/582-07 6/582-19 6/582-19 6/583-07 6/583-11 6/582-11 6/582-11 6/582-11 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-13 6/582-22 882-22 882-22 882-22 882-22 882-22 882-22 882-22 882-24 882-22 882-22 882-22 882-22 882-22 882-22 882-13 6/583-13	CLASS HRS HRS HRS HRS HRS HRS HRS HRS HRS H	TWT  59.1  60.0  50.0  50.0  50.0  50.0  50.0  50.0  50.0  50.0  50.0  50.0  50.0  50.0  50.0	FYELD 67.6 70.1 71.7 70.2 68.0 69.5 69.5 68.1 68.1 68.9 66.3 66.3 68.9 66.3 68.9 66.3 68.9 66.3 68.9	FASH  1/	MSCOR 83.8 843.5 847.2 847.3 847.2 847	12.5 12.6 12.6 13.3 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	MABSC 51.1 60.5 61.1 60.9 61.0 61.0 61.0 61.0 61.0 61.0 61.1 61.0 61.1 61.0	MTYPE 4M
841180 NK761011	5/ NK751	HRS	62.5	7.07	0.36	87.4	11.4	-	ήН
1/ Observed Values Corrected to 14% Moisture Basis	sis.		5/ Part	Particularly Pr	Promising Ov	Overall Quality	ity Characteri	teristics	

6/ Promising Overall Quality Characteristics.

<sup>3/</sup> Absorption at 14% Moisture Corrected to 12% Protein. 4/ Observed Values Corrected to 12% Protein.

EXPERIMENT #9 KNC 19 & 20

NURSCO 46			LIND, Y	MA					С. F. КО	KONZAK
LABNUM	VARIETY	ONG	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
841155 KNC00019 I 841156 KNC00019 I 841157 KNC00019 I 841158 KNC00019 I 841159 KNC00019	NHS07664/NDM00004 NHS07664/NDM00004 NHS07664/NDM00004 NHS07664/NDM00004 NHS07664/NDM00004	\$82-02 \$82-07 \$82-07 \$82-09 \$82-15	HRS HRS HRS HRS	63.3 62.7 63.5 65.0	62.8 62.2 62.1 62.6 63.4	3.1	1055 985 1080 1110	1024 1010 1043 1054	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Q-FYELD&MTIME Q-FYELD
841160 KNC00019 841161 KNC00019 841162 KNC00019 841163 NHS07664 841164 KNC00020	NHS07664/NDM00004 NHS07664/NDM00004 NHS07664/NDM00004 NDM00004/NHS07764	\$82-26 \$83-07 \$83-09 NH\$7664 \$82-07	HRSS HRSS HRSS	59.6 62.2 62.2 62.0 61.2	60.9 62.7 62.1 62.8 61.7	2.6 3.1 4.6 5.0	990 1025 1100 1075	1071 1056 1094 1125	3222	Q-BCRGR Q-FYELD&BCRGR
841165 KNC00020 841166 KNC00020 841167 KNC00020 841168 KNC00020	NDMOODOU,/NHSO7764 NDMOODOU/NHSO7764 NDMOODOW/NHSO7764 NDMOODOW/NHSO7764	\$82-11 \$82-15 \$82-09 \$82-10 \$82-12	HRS HRS HRS HRS	63.1 63.2 61.0 63.2 60.0	62.5 63.0 61.3 62.2 59.7	1333	1040 1085 1025 1100 965	1003 1073 1044 1038 946	23 Q-10 C-10 C-10 C-10 C-10 C-10 C-10 C-10 C	Q-FYELD,BCRGR Q-FYELD,BCRGR P-FYELD,MTIME&BCRGR
841170 KNC00020 841171 KNC00020 841172 KNC00020 841173 KNC00020	NDM00004/NHS07764 NDM00004/NHS07764 NDM0004/NHS07764 NDM0004/NHS07764	\$82-13 \$82-14 \$82-20 \$82-22 \$82-22	H H H H H K S S S S S S S S S S S S S S	63.7 62.4 58.4 61.7	62.4 61.8 58.4 61.6	23.5 4.7.7 7.7.7	1110 1050 885 1085 1065	1029 1013 885 1079 1053	2 8 P-1 4 Q-E	P-LVOL&BCRGR Q-BCRGR Q-BCRGR
841175 KNC00020 841176 KNC00020 841177 KNC00020 841178 KNC00020	NDMOOOOU,/NHSO7764 NDMOOOOU/NHSO7764 NDMOOOOU/NHSO7764 NDMOOOOU/NHSO7764	\$82-43 \$83-07 \$83-13 \$83-40 NH\$7664	HR HR HR S S S S S S S S S S S S S S S S	59.2 61.6 64.5 60.4 61.0	59.2 60.7 63.0 59.9	3.0 2.4 2.4 4.7 4.7	1035 1090 1165 985 1080	1035 1034 1072 954	3 0 - E	BCRGR BCRGR FYELD BCRGR BCRGR
841180 NK761011		NK751	HRS	63.0	63.6	3.7	11115	1152	2	

-COMMENTS: No check variety for reference. Some promising selections footnoted. See "Remarks" for major deficiencies.

P = Poor; Q = Questionable

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NURSCO 47		MADRAS,	OR					7	.E. KRONSTAD	STAD
LABNUM	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
841181 MCKAY (C1017903) 841182 WAMPUM (C1017691) 841183 BORAH (C1017267) 841184 CM37705, F6 841185 MPC770928	SPELT1 SPELT2 SPELT4 6/SPELT15 SPELT17	HRS HRS HRS HRS	62.3 60.3 64.8 58.8	73.1 67.9 69.4 71.4	0.37 0.40 0.40 0.41 0.41	89.3 80.5 82.4 84.0 69.0	12.2	62.1 65.2 62.1 65.1 63.0	55H 57H 57H	63.3 67.3 64.0 66.9 66.3
841186 MPC770302 841187 CM30136-3Y-1Y-1M-5Y-B-Y 841188 CM42398-27Y-3M-1Y-3M-YB 841189 CM43903H-4Y-2M-1Y-2M-YB 841190 CM39992-F6	SPELT18 SPELT22 SPELT23 SPELT24 SPELT25	HRS HRS HRS HRS	61.2 59.6 58.4 64.3 62.7	66.2 66.0 64.4 71.3 65.6	0.42 0.42 0.42 0.42	76.6 76.5 73.6 84.1 76.8	12.5 13.4 14.0 11.4	65.4 67.4 66.7 64.5 65.7	H4 H4 H2 H4 H2	68.6 70.5 71.4 65.6 69.9
841191 SWM6558-2Y-1K-0K 841192 CM38212, F7 841193 MPC770062 841194 MPC770039 841195 CM37760, F7	SPELT11 6/SPELT13 6/SPELT16 6/SPELT19 6/SPELT21	HRS HWS HWS HWS	58.4 59.1 58.5 62.1 59.0	68.3 71.1 69.0 71.5 69.8	0.50 0.45 0.47 0.43	74.9 82.4 77.1 83.9 78.9	11.7 12.8 12.8 11.4	63.0 66.2 64.3 65.4 63.3	4H 66H 66H 66H	64.4 68.7 66.8 66.5 65.4
841196 OWENS (C1017904) 841197 DIRKWIN (C1017745) 841198 TWIN (C1014588) 841199 CM33483-F7 841200 CM43381-F8	SPELT6 SPELT7 SPELT8 SPELT27 6/SPELT28	SWS SWS SWS SWS SWS	561.9 56.6 55.2 58.1 61.8	69.4 69.0 67.0 64.5 67.9	0.40 0.48 0.47 0.41 0.39	80.9 74.3 72.7 71.0	10.7	57.2 56.9 58.1 61.2 59.6	44M 22H 66H 6M	62.8
841201 CM47768A-F8	SPELT30	SMS	58.8	65.3	0.47	0.89	12.2	56.9	2H	
1/ Observed Values Corrected to 14% Moisture Basis. $\frac{5}{4}$ / Absorption at 14% Moisture Corrected to 12% Protein. $\frac{4}{4}$ / Observed Values Corrected to 12% Protein.	sture Basis. to 12% Protein. tein.			5/ Parti 6/ Promi	cularly F sing Over	Particularly Promising Overall Quality Characteristics Promising Overall Quality Characteristics.	Overall Q ty Charac	uality Ch teristics	aracteris	tics.

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MADRAS, OR

USDA, SEA AR WESIERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 47

LABNUM	ONGI	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	1000	COD1C	RMKS
841181 MCKAY (C1017903) 841182 WAMPUM (C1017691) 841183 BORAH (C1017267) 841184 CM37705, F6 841185 MPC770928	SPELT1 SPELT2 SPELT4 SPELT15 SPELT15	HRS HRS HRS HRS	63.8 66.9 63.8 66.8	7.5 7.5 7.8 7.8	985 980 1000 935	1016 955 988 929 918	たいしいい			Q-LVOL P-FYELD&BCRGR
841186 MPC770302 841187 CM30136-3Y-1Y-1M-5Y-B-Y 841188 CM42398-27Y-3M-1Y-3M-YB 841189 CM43903H-4Y-2M-1Y-2M-YB 841190 CM39992-F6	SPELT18 SPELT22 SPELT23 SPELT24 SPELT25	HRS HRS HRS HRS HRS	68.1 69.1 69.4 66.2	5.8	970 995 965 865 808	939 908 841 902 808	たれい 12			P-FYELD P-FYELD P-FYELD P-LVOL VP-FYELD, LVOL
841191 SWM6558-2Y-1K-0K 841192 CM38212, F7 841193 MPC770062 841194 MPC770039 841195 CM37760, F7	SPELT11 SPELT13 SPELT16 SPELT19 SPELT19	HWS HWS HWS	64.7 67.9 66.0 67.1 65.0	3.6 5.4 7.9 7.9	925 1015 975 890 950	944 965 925 927 925	SS-tc			Q-MSCOR&BCRGR Q-BCRGR High Flr. Ash Q-LVOL Q-ASH,LVOL
841196 OWENS (C1017904) 841197 DIRKWIN (C1017745) 841198 TWIN (C1014588) 841199 CM33483-F7 841200 CM43381-F8	SPELT6 SPELT7 SPELT8 SPELT27 SPELT28	SMS SMS SMS SMS	61.9	0.6	1115	1061	~	8.80 8.32 8.40 8.19	8.66 8.31 8.29 8.35	P-FYELD, CODI
841201 CM47768A-F8	SPELT30	SMS						8.29	8.32	P-FYELD

properties could be improved it would be an excellent dual purpose wheat. See "Remarks" for deficiencies of other selections. COMMENTS: Noteworthy is CM33483-F7 selection, which has outstanding bread baking properties and fair pastry properties. If its milling Flour yield is a predominate problem.

Q = Questionable; P = Poor; VP = Very Poor

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NURSCO 48			CORVALLIS,	OR					W.E. KR	KRONSTAD
LABNUM	<u>\</u>	ONG	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
841202 MCKAY (C1017903) 841203 SHASTA (C1003976) 841204 BORAH (C1017267) 841205 CM30697-2M-BY-7M-1Y-B-Y 841206 CM33027F-12M-1Y-6M-0Y	/9 	SPHRA1 SPHRA2 SPHRA4 SPHRA6 SPHRA6	HRS HRS HRS HRS	62.0 60.8 64.0 64.8	70.3 70.4 72.5 70.0 67.0	0.36 0.41 0.34 0.35	87.0 84.6 90.5 87.2 83.0	10.8 11.5 11.0 10.5	60.5 61.8 61.1 62.2 60.1	5H 4H 4H 4M
841207 CM33203G-5M-6Y-M-Y-M-Y 841208 CM33682L-1Y-1Y-4M-YBYM 841209 CM37705K-2Y-7M-3Y-1M-0Y 841210 CM31678-F10-4 841211 CM31678-F09-6	/9	SPHRA8 SPHRA9 SPHRA10 SPHRA11	HRS HRS HRS HRS	65.2 62.4 65.6 62.4 61.2	71.9 70.5 70.6 69.5 69.1	0.36 0.41 0.35 0.41	88.9 84.5 87.8 83.7 82.3	100 100 100 100 100 100 100 100 100 100	59.5 59.7 61.2 61.5	2H 2H 2H 2H 2H 3H
841212 CM33028-F9 841213 CM33023-F7 841214 CM33023-F8 841215 1SPTN82011 841216 1SPTN82121	<i>5,0,0,0,0,</i>	SPHRA13 SPHRA14 SPHRA15 SPHRA17 SPHRA18	HRS HRS HRS HRS	64.4 65.6 61.6 64.8 64.4	68.9 70.3 67.4 69.3	0.37 0.35 0.41 0.40 0.38	85.2 87.7 81.5 84.0	11.3	59.9 59.5 60.8 59.6	33M 6M 6M
841217 1BWSN82030 841218 1BWSN82179 841219 1BWSN82189 841220 1BWSN82190 841221 BSMEX80065-HK-K3	0,0,0,0,0,0	SPHRA19 SPHRA21 SPHRA22 SPHRA23 SPHRA23	HRS HRS HRS HRS	62.0 65.2 64.4 64.8	69.1 68.7 69.0 70.4 67.8	0.41 0.41 0.38 0.37 0.42	83.2 82.8 84.4 86.8	10.3 8.8 9.5	61.6 60.6 60.3 61.4 63.1	2H 2M 2H 4H
841222 VEOLA 80020 841223 PC820120 841224 PC820338		SPHRA25 SPHRA26 SPHRA27	HRS HRS HRS	66.0 63.2 63.6	70.2 70.1 68.5	0.38	85.9 85.8 84.3	10.6 9.8 9.7	62.8 61.7 61.4	7M 2H 2H
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 10% Protein. 4/ Observed Values Corrected to 10% Protein.	14% Moisture Basis. Corrected to 10% Protein 10% Protein.			5/ Part 6/ Prom	Particularly Promising Overall Quality Ch Promising Overall Quality Characteristics	omising Ov 11 Quality	Overall Qual ty Character	Quality Characteristics	teristics.	

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CORVALLIS,

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

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NURSCO

LABNUM	ONO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR RMKS
				3/			4/	
	SPHRA1	HRS	62.0	61.2		1080	1030	0 ~
841203 SHASTA (C1003976) 841204 BORAH (C1017267)	SPHRAZ	HRS	62.8	61.8		1010	948	n 0
	SPHRA6 SPHRA7	HRS	64.4	63.9	3.5	975	944	2 6 P-FYELD, LVOL&BCRGR
	SPHRA8	HRS	61.7	61.2	4.2	955	426	
	SPHRA9	HRS	60.7	0.0	ا ت د	900	00 -	5 F-MIIME, LVOL, BURGE 2 Q-1 VOI
841210 CM31678-F10-4 841211 CM31678-F10-4	SPHRA11 SPHRA12	HRS	62.4 61.4	62.2		950	938	6 P-MIME, BCRGR 6 P-MIME, LVOL&BCRGR
841212 CM33028-F9 841213 CM33023-F7	SPHRA13 SPHRA14	HRS	62.9	61.6	3.6	905	824 846	5 P-MTIME, LVOL&BCRGR 6 P-LVOL&BCRGR
	SPHRA15	HRS				870	21	P-LV0L8
841215 ISPIN82011 841216 ISPIN82121	SPHRA11 SPHRA18	HRS		50		913	- m	3 P-LVOL Q-BCRGR 3 P-LVOL Q-BCRGR
	SPHRA19	HRS		62.3	1.7	910	891	4 P-MTIME, LVOL&BCRGR
841218 IBWSN82179 841219 IBWSN82189	SPHRA21 SPHRA22	HRS	0 0	60.3	0.5	040 740	191	
<u> </u>	SPHRA23 SPHRA24	HRS	61.6	62.1	3.1	825	856	8 VP-NTIME, LVOL&BCRGR 8 VP-LVOL&BCRGR
841222 VEOLA 80020	SPHRA25 SpubA26	HRS	66.1	65.5	8.0	823	786	3 VP-LVOL
	SPHRA27	HRS	ز	; ~		875	894	

grain textures of the bread. Selections SPHRA 6, 8, and 10 have fair to good overall quality, but none quite equal to McKay or Borah. COMMENTS: Most of these lines have a common deficiency of short and weak dough mixing properties, low loaf volumes, and heavy and coarse crumb

P = Poor; Q = Questionable; VP = Very Poor

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NURSCO 49		MADRAS,	OR					3	m.	KRONSTAD
LABNUM	ONO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
841225 OWENS (CI017904) 841226 TWIN (CI014588) 841227 DIRKWIN (CI017745) 841228 1D0266 841229 BSMEX80263-HK-K2	SPSWA1 SPSWA2 SPSWA5 6/SPSWA11 SPSWA12	SWS SWS SWS SWS SWS	60.4 58.0 56.0 61.6	66.0 66.7 66.9 66.9	0.40 0.49 0.45 0.37	79.4 75.0 77.0 82.5 61.6	9.3 10.3 11.8	55.2 56.6 55.0 58.6 58.9	28 13 3 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
841230 ISPTN82005 841231 IBWSN82172 841232 IBWSN82174 841233 SWM4578-F6 841234 SWM4578-F6	SPSWA14 SPSWA19 SPSWA20 SPSWA6 SPSWA6	SWS SWS SWS HWS HWS	61.2 62.0 58.8 58.8	60.3 59.6 62.6 64.6 65.2	0.39 0.47 0.46 0.48 0.48	73.0 67.1 71.6 74.8 75.2	11.1 9.6 10.6 10.5	60.8 54.6 57.5 63.3 63.6	2 H S S H S	63.6
841235 CM33027F-F7 841236 CM33027F-F7 841237 CM330901-T7 841238 PC820046 841239 ISPTN82019	SPSWA8 SPSWA9 SPSWA10 SPSWA13 SPSWA15	HWS HWS HWS HWS	63.6 60.8 62.4 61.6	66.4 65.7 67.0 64.8 65.3	0.48 0.49 0.47 0.47 0.48	76.4 75.4 77.6 75.5	10.8	62.0 61.7 59.9 62.9 58.3	2H 2ZH 33M	63.5 63.0 59.9 64.7 59.0
841240 IBWSN82017 841241 IBWSN82094	6/ SPSWA16 SPSWA18	HWS	60.8	68.0	0.44	80.4	12.2	65.3	4H 2H	67.2
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 11% Protein. 4/ Observed Values Corrected to 11% Protein.	disture Basis.  d to 11% Protein.			5/ Part 6/ Prom	icularly ising Ove	Particularly Promising Overall Quality Characteristics Promising Overall Quality Characteristics.	Overall ity Chara	Quality (	Character.	stics.

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 49		MADRAS, OR	OR					4	W.E. KRONSTAD	'AD
LABNUM VARIETY	ONO	CLASS	BABSC	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	RMKS
841225 OWENS (C1017904) 841226 TWIN (C1014588) 841227 DIRKWIN (C1017745) 841228 1D0266 841229 BSMEX80263-HK-K2	SPSWA1 SPSWA2 SPSWA5 SPSWA11 SPSWA11	SWS SWS SWS SWS						9.24 9.24 9.12 9.06 8.39	9.03 9.12 9.04 8.95 8.48VP-F	9.03 9.12 9.04 8.95 8.48VP-FYELD&CODI
841230 ISPTN82005 841231 IBWSN82172 841232 IBWSN82174 841233 SWM4578-F6 841234 SWM4578-F6	SPSWA14 SPSWA19 SPSWA20 SPSWA6 SPSWA6	SWS SWS SWS SWS SWS HWS HWS	64.0 65.4	7.5	880	905	7 8	9.11	9.12P-FYELD 8.89P-FYELD 8.64P-FYELD& P-FYELD, P-FYELD,	89P-FYELD 64P-FYELD 64P-FYELD&CODI P-FYELD,LVOL&BCRGR P-LVOL&BCRGR
841235 CM33027F-F7 841236 CM33027F-F7 841237 CM33090T-T7 841238 PC820046 841239 ISPTN82019	SPSWA8 SPSWA10 SPSWA13 SPSWA13	HWS HWS HWS HWS	63.7 63.4 60.6 64.6 60.0	2.22	850 815 810 870 750	862 840 853 864 812	∞ ∞ ∞ ∞ ∞		- F - F - F - F - F - F - F - F - F - F	P-LVOL&BCRGR P-LVOL&BCRGR P-LVOL&BCRGR P-FYELD,LVOL&BCRGR P-FYELD,LVOL&BCRGR
841240 IBWSN82017 841241 IBWSN82094	SPSWA16 SPSWA18	HWS	66.0	3.9	1065	991	0.80		P-LVC	P-LVOL&BCRGR

COMMENTS: This nursery was abnormally low in milling properties. Experimental selections were judged in comparison with the performance of the "Check" varieties. See "Remarks" for deficiencies. IBWSN82017 has superior baking qualities.

VP = Very Poor; P = Poor

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 50		MADRAS,	OR					M	ш.	KRONSTAD
LABNUM	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
841242 OWENS (C1017904) 841243 DIRKWIN (C1017745) 841244 1618WSN83049 841245 131SEPTON8327 841246 131SEPTON8345	SPPRE1 SPPRE2 6/SPPRE21 5/SPPRE43	SWS SWS SWS SWS SWS	61.2 58.0 62.8 63.6 61.6	68.6 68.8 68.8 68.9	0.42 0.46 0.43 0.42 0.37	81.7 79.6 81.5 82.0 84.6	9.5	56.6 54.9 57.4 57.9 55.9	WHHW 42224 42224	
841247 WAMPUM (C1017691) 841248 MCKAY (C1017903) 841249 161BWSN83008 841250 161BWSN83193	SPPRE8 SPPRE4 SPPRE4 SPPRE5 SPPRE5	HRS HRS HRS HRS	59.6 61.6 62.0 62.4 63.6	67.7 69.3 66.6 7.99	0.45 0.41 0.48 0.44 0.42	79.5 83.5 76.9 78.9 82.9	11.7 10.6 10.9 10.8	63.4 62.7 62.3 63.0 61.9	HWWH HWWH	61.8 62.9 63.5 60.5
841252 161BWSN93013 841253 161BWSN83027 841254 161BWSN83036 841255 161BWSN83037 841256 161BWSN83039	SPPRE12 6/ SPPRE14 SPPRE16 SPPRE17 SPPRE18	HWS HWS HWS HWS	64.4 62.4 59.6 59.2 58.8	70.0 68.9 65.0 64.2 64.1	0.37 0.43 0.52 0.52 0.52	86.0 82.1 73.3 72.1	10.8 10.0 10.0 10.9	58.2 61.5 60.2 61.7 58.8	23.H 23.H 24.H	57.2 61.9 60.9 61.9 60.9
841257 161BWSN83061 841258 161BWSN83074 841259 161BSWN83075 841260 161BWSN83079 841261 161BWSN83082	SPPRE24 SPPRE25 SPPRE26 SPPRE27 SPPRE27	HWS HWS HWS HWS HWS	62.0 62.4 61.2 62.8	67.2 67.8 68.9 69.4 67.8	0.44 0.41 0.43 0.44 0.44	79.8 81.5 82.1 81.7	10.6	61.6 59.7 61.9 61.2 60.1	2H 2H 2H 4M	63.9 58.0 60.8 61.8 59.9
841262 161BWSN83088 841263 161BWSN83103 841264 161BWSN83111 841265 161BWSN83113	SPPRE29 SPPRE31 SPPRE32 SPPRE33 SPPRE33	HWS HWS HWS HWS HWS	62.8 62.0 58.8 63.6 62.4	69.5 65.5 68.8 70.0 68.7	0.44 0.47 0.46 0.43 0.44	81.7 76.2 80.1 83.1 81.0	10.6 11.2 10.7 10.7	60.7 59.3 62.6 59.8 59.0	23H 22M 22M	62.0 60.2 62.0 58.7 58.1
841267 161BWSN83133 841268 161BWSN83217 - 841269 161BWSN83226 841270 131SEPTON8329 841271 131SEPTON8337	SPPRE37 6/SPPRE42 SPPRE42 6/SPPRE44	HWS HWS HWS HWS	63.2 61.6 62.0 62.0 62.8	69.4 69.8 69.8 69.8	0.46 0.44 0.41 0.41 0.42	80.7 82.1 83.3 81.1	11.9	58.4 64.6 62.1 62.8 59.0	2M 4H 2M	59.0 66.3 60.4 65.0 58.5
841272 131SEPTON8344 841273 131SEPTON8361	SPPRE46 SPPRE48	HWS	64.4	68.0	0.49	77.8	11.3	60.0	2M 2M	61.0
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 11% Protein.	sture Basis. to 11% Protein.			5/ Part 6/ Prom	Particularly Promising Ove	ly Promising Over	Overall ity Chara	ty sti	Characteri .cs.	istics.

 $<sup>\</sup>frac{3}{4}$  Absorption at 14% Moisture Corrected to 11% Protein.  $\frac{4}{4}$  Observed Values Corrected to 11% Protein.

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W.E. KRONSTAD

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 50

MADRAS, OR

Part											
OWERS (CIOT7004)         SPREZ (SISS)         SHS         9.22 (SISS)           DIRKMIN (CIOT745)         SPREZ (SISS)         SHS         9.32 (SISS)           DIRKMIN (CIOT745)         SPREZ (SISS)         SHS         9.32 (SISS)           13 (SEPTON8314)         SPREZ (SISS)         SHS         9.25 (SISS)           13 (SEPTON8314)         SPREZ (SISS)         SHS         9.25 (SISS)           13 (SEPTON8314)         SPREZ (SISS)         SHR (SISS)         9.25 (SISS)           13 (SEPTON8314)         SPREZ (SISS)         HRS (SISS)         9.26 (SISS)           16 (BANNA3004)         SPREZ (SISS)         HRS (SISS)         9.75 (SISS)           16 (BANNA301)         SPREZ (SISS)         HRS (SISS)         9.25 (SISS)           16 (BANNA302)         SPREZ (SISS)         HRS (SISS)         9.75 (SISS)           16 (BANNA303)         SPREZ (SISS)         HRS (SISS)         9.75 (SISS)		ONGI	15	BABSC	MTIME	LVOL	LVOLC 4/	BCRGR	1000	COD1C	RMKS
WAMPUM (C1017691)         SPPREB         HRS         61.1         2.4         970         927         5           16 IBWSR83028         SPPRED         HRS         61.4         2.5         988         1013         5           16 IBWSR83028         SPPRED         HRS         61.4         2.5         968         1013         5           16 IBWSR83024         SPPRED         HRS         61.4         1.8         945         957         6           16 IBWSR83027         SPPRED         HWS         61.2         2.9         925         86         6           16 IBWSR83037         SPPRED         HWS         62.9         2.3         705         80         7           16 IBWSR83037         SPPRED         HWS         62.9         2.3         705         80         7           16 IBWSR83047         SPPRED         HWS         62.9         2.3         705         80         7           16 IBWSR83051         SPPRED         HWS         62.9         2.3         705         80         6           16 IBWSR83061         SPPRED         HWS         62.9         2.3         705         80         6           16 IBWSR83062         SP		SPPRE1 SPPRE2 SPPRE21 SPPRE43 SPPRE43	SWS SWS SWS SWS SWS						52-32		
Figure   F		SPPRES SPPRE4 SPPRE4 SPPRE5	XXXXX			970 988 865 945 755	927 1013 871 957 823	NUSUO		444	VOL, BCRCR&MTIM 4TIME VOL&MTIME
16   BWSNB3061         SPPRE24         HWS         64.3         1.4         770         795         6           16   BWSNB3074         SPPRE25         HWS         61.6         1.2         750         800         8           16   BWSNB3074         HWS         61.6         1.2         750         800         8           16   BWSNB3079         HWS         61.6         1.2         750         829         6           16   BWSNB31079         SPPRE27         HWS         62.9         1.5         750         829         6           16   BWSNB3103         SPPRE29         HWS         62.4         2.6         750         789         6           16   BWSNB3111         SPPRE32         HWS         60.0         1.5         750         789         6           16   BWSNB3113         SPPRE32         HWS         62.3         1.4         810         829         6           16   BWSNB3113         SPPRE34         HWS         59.0         1.5         789         6           16   BWSNB3113         SPPRE34         HWS         58.7         1.2         789         6           16   BWSNB3211         SPPRE44         HWS         65.3         1.2<		SPPRE12 SPPRE14 SPPRE16 SPPRE17 SPPRE17	HWS HWS HWS HWS			840 925 795 785 800	852 1006 857 847 806	ひめてして		4 444	VOL&MTIME -VOL&BCRG -YELD, LVOL&BCRG -YELD, LVOL&BCRG
16 IBWSNB308B       SPPRE31       HWS       62.4       2.6       815       840       4         16 IBWSNB3103       SPPRE31       HWS       60.0       1.5       750       738       8         16 IBWSNB3111       SPPRE32       HWS       62.3       1.4       810       829       6         16 IBWSNB3113       SPPRE32       HWS       59.0       1.5       780       799       6         16 IBWSNB3117       SPPRE34       HWS       58.7       1.2       785       822       8         16 IBWSNB3117       SPPRE34       HWS       58.1       1.2       785       822       8         16 IBWSNB3217       SPPRE42       HWS       65.3       2.5       945       883       2         13 ISEPTONB329       SPPRE42       HWS       61.8       2.0       785       874       3         13 ISEPTONB324       SPPRE44       HWS       60.7       1.7       710       809       9         13 ISEPTONB344       SPPRE46       HWS       60.7       1.7       710       809       9		SPPRE24 SPPRE25 SPPRE26 SPPRE27 SPPRE27	HWS HWS HWS HWS			770 660 750 825 740	795 716 800 893 827	00000			4TIME, LVOL&BCRG 4TIME, LVOL&BCRG 4TIME, LVOL&BCRG 4TIME, LVOL&BCRG LVOL&BCRG
16 BWSN83133       SPPRE37       HWS       58.1       1.2       730       674       8         16 BWSN83217       SPPRE42       HWS       65.3       2.5       945       883       2         16 BWSN83217       SPPRE42       HWS       61.8       2.0       785       872       6         13 I SEPTON8329       SPPRE44       HWS       64.5       3.0       965       934       3         13 I SEPTON8337       HWS       57.7       1.2       865       815       6         13 I SEPTON8344       SPPRE46       HWS       60.7       1.9       835       816       8         13 I SEPTON8344       SPPRE48       HWS       60.5       1.7       710       809       9		SPPRE29 SPPRE31 SPPRE32 SPPRE33 SPPRE34	HWS HWS HWS HWS	2.0 2.0 7.0 7.0	2	815 750 810 780 785	840 738 829 799 822	\$ 0 0 0 8 t			VOL&BCRGR 4TIME, LVOL&BCRG 4TIME, LVOL&BCRG 4TIME, LVOL&BCRG 4TIME, LVOL&BCRG
131SEPTON8344 131SEPTON8361 SPPRE48 HWS 60.7 1.9 835 816 8 9 131SEPTON8361	161	SPPRE37 SPPRE42 SPPRE44 SPPRE44 SPPRE44	HWS HWS HWS HWS			66843	674 883 872 934 815	00000			4TIME, LVOL&BCRG VOL&BCRGR 4TIME, LVOL&BCRG
		SPPRE46 SPPRE48	HWS			2	816	8 6		99	WTIME, LVOL&BCRG

COMMENTS: Most of the entries in this nursery were hard endosperm wheats. Baking properties were poor in most, particularly short and weak mixing properties, low loaf volumes, and heavy crumb grain texture. Those footnoted may have promise.

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	LAB.	
	QUALITY LAB.	
SFA AR	WHEAT	MA
USDA, SE	WESTERN WHEAT	PULLMAN

NURSCO 51

EASTERN SOFT WHEAT

WOOSTER, OH

62.0 72.0 62.0 72.4 61.2 70.7 61.0 71.3 60.0 69.5		MSCOR FPROT MABSC CODI	000000			
62.0 72.0 62.0 72.4 61.2 70.7 61.0 71.3 60.0 69.5		1	MABSC	CODI	CODIC MTYPE RMKS	
62.0 72.0 62.0 72.4 61.2 70.7 61.0 71.3 60.0 69.5			3/		4/	
62.0 72.4 61.2 70.7 61.0 71.3 60.0 69.5 59.6 69.5				9.34		
60.0 69.5		# 60 # 60		9.21	9.26 /L 9.66 3L	
59.6 69.5			50.5	99.6		
59.6 69.5				9.35		
0 07 1 07	0.39					
SRW 61.0 69.6 0	0.37 86.	2 8.2	49.1	9.22	9.25 5L	
1/ Observed Values Corrected to 14% Moisture Basis.  3/ Absorption at 14% Moisture Corrected to 8% Protein.  4/ Observed Values Corrected to 8% Protein.	5/ Particularly Promising Overall Quality Cha 6/ Promising Overall Quality Characteristics.	romising all Qual	Overall ity Char	Quali	5/ Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.	

These soft red winter wheat cultivars were provided by the ARS, Soft Wheat Quality Laboratory for research purposes and a comparison with Western soft white wheats. Mill scores are similar to SWW, but cookie diameters were generally larger. Absorption values are lower than most common soft white wheats, but similar to Western club wheats. COMMENTS:

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MCPROUD/MONROE

	LAB.	
	QUALITY LAB.	
SEA AR	WESTERN WHEAT	WA. WA
USDA,	WESTER	PULLMA

NURSCO 52

PLANT BREEDERS I WHEATS

CULDESAC, 1D

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD FASH	FASH 1/	MSCOR	FPROT 1/	MSCOR FPROT MABSC MIYPE  1/ 3/	PE CODI	CODIC RMKS
841282 DAWS 841283 STEPHENS 841284 PBI-79-WW-57A 841285 PBI-79-WW-96A 841286 PBI-79-WW-130A		C1017419 C1017596	MWS/90	57.6 56.0 56.0 56.4 56.4	65.8 67.8 65.2 65.9	0.36 0.36 0.36 0.39	82.2 84.6 80.8 82.3 81.2	8.6 9.9 9.7 9.7	55.2 4L 55.2 2M 54.5 4L 54.1 4L 54.9 4L	8.75 9.07 8.92 8.76 8.95	8.72 8.92 8.82 8.97
841287 PB1-79-WW-130B 841288 PB1-79-WW-176B-F 841289 PB1-80-WW-1 841290 PB1-80-WW-3 841291 PB1-80-WW-5			MW8/9 WW8/9 WW8/9	56.8 54.8 56.8 56.8	64.5 68.9 66.5 65.5 65.2	0.38 0.37 0.35 0.39	79.9 84.7 83.5 80.5	9.4 10.3 10.0 9.8 9.5	53.7 4L 59.0 6M 53.0 2M 53.3 4L 53.3 4L	8.86 8.45 9.15 9.09 8.89	8.89 8.55Low CODI(Hard) 9.23 9.15 8.93
841292 PB1-80-WW-6 841293 PB1-80-WW-9 841294 PB1-80-WW-23			MMS/9	55.6 56.8 56.8	64.6 64.0 65.3	0.38 0.38 0.38	79.8 79.2 80.6	9.1	53.7 4L 53.2 4L 53.4 4L	9.17	9.18Q-FYELD 8.87Q-FYELD 8.91
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 9% Protein.	ed to 14% Moisture Basis.					5/ Par 6/ Pro	ticular]	ly Prom	5/ Particularly Promising Overall Quality Cha 6/ Promising Overall Quality Characteristics.	11 Quali aracteri	Particularly Promising Overall Quality Characteristics. Promising Overall Quality Characteristics.

5/ Absorption at 14% Moisture Corrected to 9% Protein. 4/ Observed Values Corrected to 9% Protein.

COMMENTS: Test weight and flour yield were low on all entries. PBI-79-WW-176B-F selection is hard endosperm white wheat. Those footnoted have promising overall quality similar to Daws.

Q = Questionable

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	QUALITY LAB.	AD	ADVANCED SOFT	SOFT WHEAT						PAGE 1
NURSCO 53			WA						R.E. ALI	ALLAN
LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
841295 841296 841297 841298 841299	Lewjain Nugaines	2 3 17 6/18 21	MMS MMS MMS	61.7 62.7 60.4 60.3 58.5	72.4 70.7 67.9 70.1	0.39 0.37 0.37 0.36	85.3 83.5 78.5 82.7 80.0	8.8 9.1. 9.3.	56.7 57.0 55.9 55.8	и п п п п п п п
841300 841301 841302 841303 841304		6/25 6/29 6/58 5/65	MMS MMS MMS	58.6 59.1 59.8 60.9	71.5 71.7 71.2 69.6 71.9	0.38 0.42 0.40 0.38	84.4 83.8 83.8 81.7	9.0	55.4 55.4 55.4 53.7	8L 4M 5M 3L
841305 841306 841307 841307 841308	Hill 81 Tyee Paha	5/66 74 93 134 6/141	MMS MMS MMS MMS	62.2 61.6 59.1 61.2 61.5	72.0 72.4 72.8 74.5 71.2	0.36 0.38 0.38 0.40 0.38	86.3 86.3 86.3 88.1 84.0	9.3 8.3 8.4 10.5	51.8 54.3 52.2 52.7 53.9	22L 33L 11L 33M
1/ Observed Val 3/ Absorption e 4/ Observed Val	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 9% Protein. 4/ Observed Values Corrected to 9% Protein.	e Basis. 9% Protein.		5/ Part 6/ Promi	icularly P ising Overa	romising O	Particularly Promising Overall Quality Characteristics. Promising Overall Quality Characteristics.	ity Characistics.	teristics.	

By Sericularly Endott Bustin Standard (Selector) (Selector)

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R.E. ALLAN

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USDA, SFA AR WESTERN WHEAT QUALITY LAB. PULLIMAN, WA.

NURSCO 53

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LABNUM	VARIETY	IDNO	CLASS	1000	CODIC 4/	CAVOL	SCSOR	WIIN	NOSCO	RMKS
841295 841296 841297 841298 841298	Lewjain Nugaines	2 17 18 21	MMS MMS MMS	9.08 8.66 8.47 8.76	9.06 8.56 8.48 8.80 8.62	1300 1265 1280 1260	81.0 78.0 79.0 78.0	361 349 355 374 365	61 60 63 56 9	P-FYELD,Q-CODI Q-FYELD,P-NOSCO
841300 841301 841302 841303 841304		, 259 58 60 65	MMS MMS MMS	8.64 8.55 8.52 8.50 8.90	8.64 8.63 8.61 8.60 8.98	1255 1245 1185 1235 1285	78.0 78.0 73.0 75.0	358 370 374 378 378	63 61 63 77	Q-CAVOL Q-FYELD Q-NOSCO, Exc. Millir
841305 841306 841307 841308 841309	Hill 81 Tyee Paha	66 74 93 134 141	MMS MMS MMS	8.99 9.06 9.24 8.88	9.03 8.78 8.98 9.17	1320 1275 1285 1305 1240	80.0 79.0 79.0 81.0 75.0	370 352 367 387 376	59 ¢ 61 68 68 60	Q-NOSCO,Exc. Milling

in cake volume but in other factors equal to the check varieties. The complete nursery was low in overall noodle score, primarily Selections #17 and 60 were low in flour yield. Sel. 17 was also questionable in cookie diameter. Selection 58 was slightly low due to poor eating texture scores. Noodle weight increase (WTIN) was acceptable. COMMENTS:

P = Poor; Q = Questionable

Property of a General as it

C.R. ROHDE

PENDLETON, OR

NURSCO 54

N N N N N N N N N N N N N N N N N N N	VARIETY	ONG	CLASS	TWI	FYELD	FASH	MSCOR	FPROT	MABSC
						1/		1/	3/
841310 H1LL 81 841311 65-116-M 841312 STEPHENS 841313 UNKNOWN/ 841314 AMIGO/ST	HILL 81 65-116-MBW//63-189-66-7/BEZ SIEPHENS UNKNOWN/1-607/B32 AMIGO/SIEPHENS/B643	C1017954 6/0WM72339 C1017596 0R834 0R8312	MMS MMS MMS MMS	60.4 59.3 58.2 60.3 58.1	75.2 73.2 73.0 69.2 72.5	0.41 0.41 0.40 0.40	88.2 885.2 84.2 78.8 84.1	7.50	53.1 53.4 56.9 52.3
841315 HN4/4/1 841316 CERCO/ 841317 HYSLOP 841318 ND/P10 841319 STEPHE	HN4/4/KT54A/N10/B//KT54B/3/NAR CERCO/TJB84A/1543/OWW76028*-CB130 HYSLOP/YAYLA/WA4995/3/CERCO/W-1980 ND/P101//7C/CB-30/M-36 STEPHENS/CAMA//OR765/414-1/K-307	0R8320 0R8334 6/0R7996 6/0R832 0R8313	SWW HRW SWW SWW SRW	62.1 60.5 59.7 58.2 57.8	73.0 67.9 73.2 74.6 72.4	0.40 0.45 0.45 0.45	86.1 76.6 83.8 86.2 84.2	8.1 7.5 7.5 1.4	52.9 62.2 54.5 52.0 54.1
841320 NORCO/ 841321 HYSLOP 841322 CLARIF 841323 DAWS 841324 MCD/RO	NORCO/VH72297/VH080717 HYSLOP/CERCO/B312 CLAR!FEN/WA5836/SEL/27-26 DAWS MCD/ROMAN!AN//OR7141/K-83	6/wa7047 OR838 OR7925 C1017419 OR8270	SWW HWW HRW SWW SWW	60.5 61.5 57.1 59.9 56.2	72.9 69.7 69.5 72.4	0.46 0.42 0.42 0.45 0.45	82.2 78.2 80.2 81.6 80.5	7.5	54.2 56.9 59.8 54.4 53.5
841325 CNN//7 841326 HYS/YA 841327 1-607/ 841328 MILDRE 841329 ALBA/G	CNN//7*LEE/TRANSFER/5/SM4/4/BURT HYS/YAYLA//63-112-66-4/3/HYS 1-607/CAMA//OR7464, K-146 MILDRESS/3/YMH//RIEB/WA4995 ALBA/GNS//FN/SONORA 64	A7523W-3 OWW74220F OR825 5/OWW70094 ORCR8107	HRW SWW SRW SWW HRW	61.7 59.0 58.9 60.2 61.6	70.6 72.2 69.0 75.4 69.9	0.43 0.42 0.42 0.42	81.3 84.3 78.6 88.3 81.9	0.86.23	60.9 53.5 58.4 54.0 61.2
841330 STEPHE 841331 2*MC/N 841332 STEPHE 841333 STEPHE 841334 PERSEN	STEPHENS/CAMA//OR265/K-59 2*MC/NP824/3/11-60-157/WSR/MC STEPHENS/P1173438/(M76-479)/PW77-16 STEPHENS/CAMA//OR765/K-300 PERSENS/CAR1BO*2/MEXCB78154/CB-142	6/0R8259 A74222W-26 0R836 5/0R8238 6/0R8342	SWW HRW HRW SWW SRW	58.2 60.5 62.1 57.5 60.2	72.4 70.8 69.4 74.8	0.42 0.44 0.42 0.41	83.5 81.6 81.2 87.2 84.0	1.57	53.0 59.6 61.7 52.8
841335 NEELY		C1017860	HRW	62.1	72.0	0.43	9,48	8.6	62.0
1/ Observed Va 3/ Absorption 8	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 8% Protein.	ein.		5/ Partic 6/ Promis	Particularly Promising Overall Quality Ch Promising Overall Quality Characteristics	sing Overall Quality Char	Quality Characteristics acteristics.	acteristics.	

 $\underline{4}/$  Observed Values Corrected to 8% Protein.

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 54		<u>a</u>	PENDLETON,	OR				C.R. ROHDE
LABNUM	VARIETY	ONGI	CLASS	MTYPE	CODI	CODIC 4/	CAVOL	SCSOR RMKS
841310 H1LL 81 841311 65-116-ME 841312 STEPHENS 841313 UNKNOWN/1 841314 AMIGO/STE	65-116-MBW//63-189-66-7/BEZ STEPHENS UNKNOWN/1-607/B32 AMIGO/STEPHENS/B643	C1017954 OWW72339 C1017596 OR834 OR8312	SWW SWW SWW WWS WWS WWS WWS WWS WWS WWS	25 S	8.71 8.76 8.76 7.84 8.91	8.62 8.64 8.71 7.85 8.85	1205 1225 1200 1190	77.0 74.0 74.0 Hard White? 70.0 Q-SCSOR
841315 HN4/4/KT5 841316 CERCO/TJ5 841317 HYSLOP/Y/ 841318 ND/P101// 841319 STEPHENS/	HNH/H/KT54A/N10/B//KT54B/3/NAR CERCO/TJB84A/1543/OWM76028*-CB130 HYSLOP/YAYLA/WA4995/3/CERCO/W-1980 ND/P101//7C/CB-30/M-36 STEPHENS/CAMA//OR765/414-1/K-307	0R8320 0R8334 0R7996 0R832 0R8313	SWW HRW SWW SWW SWW SWW	15 17 17 17 17 17 17 17 17 17 17 17 17 17	8.88 7.24 8.88 9.12 8.87	8.89 7.23 8.83 9.13 8.80	1175 1195 1170	71.0 Q-SCSOR HRW-Poor Fyeld 73.0 Q-SCSOR 68.0 Q-SCSOR 73.0 Soft Red?
841320 NORCO/VHT 841321 HYSLOP/CF 841322 CLARIFEN, 841323 DAWS 841324 MCD/ROMAN	NORCO/VH72297/VH080717 HYSLOP/CERCO/B312 CLAR!FEN/WA5836/SEL/27-26 DAWS MCD/ROMANIAN//OR7141/K-83	WA7047 OR838 OR7925 C1017419 OR8270	SWW HWW HRW SWW SWW	778847	8.89 8.12 7.33 8.45	8.78 8.06 7.28 8.34 8.38	1265 1070 1195 1120	77.0 High Ash 59.0 VP-Hard White VP-Hard White 71.0 64.0 P-FYELD,CODI&SCSOR
841325 CNN//7*LE 841326 HYS/YAYL/ 841327 1-607/CA 841328 MILDRESS, 841329 ALBA/GNS,	CNN//7*LEE/TRANSFER/5/SM4/4/BURT HYS/YAYLA//63-112-66-4/3/HYS I-607/CAMA//OR7464,K-146 M!LDRESS/3/YMH//R!EB/WA4995 ALBA/GNS//FN/SONORA 64	A7523W-3 OWW74220F OR825 OWW70094 ORCR8107	HRW SWW SRW SWW HRW	72887	7.73 8.58 8.52 9.16	7.73 8.50 8.33 9.00 7.67	1165 1125 1255	Hard Red 71.0 Q-CODI&SCSOR 65.0 P-FYELD,CODI&SCSOR 77.0 Excellent Overall HRW
841330 STEPHENS/ 841331 2*MC/NP83 841332 STEPHENS/ 841333 STEPHENS/ 841334 PERSENS/	STEPHENS/CAMA//OR265/K-59 2*MC/NP824/3/11-60-157/WSR/MC STEPHENS/P1173438/(M76-479)/PW77-16 STEPHENS/CAMA//OR765/K-300 PERSENS/CAR180*2/MEXCB78154/CB-142	OR8259 A74222W-26 OR836 OR8238 OR8342	SWW HRW HRW SWW SRW	3.1 3.1 3.1	9.00 7.71 7.47 9.05 8.68	9.01 7.67 7.61 8.95	1240 1325 1275	75.0 HRW HRW 80.0 77.0 Soft Red?
841335 NEELY		C1017860	HRW	9	7.74	7.79		

COMMENTS: Several selections have hard endosperm (Both red & white seeded). Because of the low protein no bread baking tests were run on these hard selections. The outstanding selections for overall milling & baking quality are OWW70094 and OR8238. Others, footnoted  $(\underline{6}/)$ are about equal to the check varieties. See "Remarks" for other deficiencies.

Q = Questionable; P - Poor; VP = Very Poor

USDA. SEA AR										PAGE 1
WESTERN WHEAI QUALITY LAB. PULLMAN, WA.	ĬŪ	ORY EARLY WHEAT	WHEAT							
NURSCO 55		PULLMAN, WA	, WA							C.J. PETERSON
LABNUM	ONGI	CLASS TWT	TWT	FYELD	FASH 1/	MSCOR	F PROT	FYELD FASH MSCOR FPROT MABSC MTYPE CODI	E C0D1	CODIC RMKS
841336 H1LL 81 (PDE7) 841337 PDE9 841338 PDE125 841339 PDE126 841340 PDE127	C1017954 6/WA6912 WA56910 WA66910 WA76910	MMS SWW SWW SWW SWW	62.4 61.6 61.6 62.8 59.2	71.6 71.4 69.3 68.5 69.2	0.33 0.40 0.40 0.40	91.5 86.5 83.7 82.8 81.9	7.9 7.6 8.7 9.1	52.6 2L 51.2 8L 52.9 2M 54.2 2M 53.5 2L	9.27 9.40 8.69 8.52 8.74	9.26 9.36 Q-CODI&FYELD 8.76 Q-CODI&FYELD 8.65 P-CODI&FYELD 8.78 Q-CODI&FYELD
1/ Observed Values Corrected to 14% Moisture Basis. $\frac{3}{4}$ Absorption at 14% Moisture Corrected to 8% Protein. $\frac{4}{4}$ Observed Values Corrected to 8% Protein.	Basis. Protein.				5/ Part 6/ Prom	icularl	y Promi	5/ Particularly Promising Overall Quality Cha 6/ Promising Overall Quality Characteristics.	l Quali racteri	5/ Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.

Q = Questionable; P = Poor

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MVACA10 POSSOLE PROPERTY

Alach cartalah

D. BIGGERSTAFF

MONTANA

NURSCO 56

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341	Fielder	WPB1	SMS	60.7	65.3	0.36	81.4	8.3	8	2M	9.36	9.18
342		WPB2	5/ SWS	60.1	71.2	0.36	88.8	9.1	6	7M	9.56	9.16
343		WPB3		61.0	67.3	0.37	83.1		8	3M	9.04	8.94
344		WPB4		61.3	9.99	0.37	82.6		7	ZM.	9.19	9.13
841345		WPB5	SMS	61.3	68.3	0.37	84.5	9.3		3M	8.75	8.67 Q-CODI
346	Fielder	WPB6		61.4	0.99	0.37	81.4	9.5		Σ	9.45	9.36
347		WPB7	_	60.3	9.69	0.37	86.1	10.3		+	9.40	9.43
348		WPB8	SMS/9	62.6	67.5	0.35	84.5	10.4	54.4	M	9.04	9.08
349		WPB9	_	62.5	67.2	0.36	84.0	10.0		Z.M	9.56	9.26
841350		WPB10	SMS	62.6	9.89	0.39	83.4	10.0		N.	8.74	8.74 Q-CODI

1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 10% Protein. 4/ Observed Values Corrected to 10% Protein.

COMMENTS: All selections except WPB5 and 10 are equal to or better than Fielder in quality characteristics. These two selections are low in cookie diameter.

 $\underline{6}/$  Promising Overall Quality Characteristics.

Q = Questionable

OR RMKS

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 57

WA, OR

LABNUM	ONGI	CLASS	TWT	WLN	WDSI	FYELD	FASH 1/	MSCOR	DSI	FPROT 1/	CAVOL	8080
841351 ?/JAEGER/CONDON, OR 60% 841352 ?/HOPP/COLVILLE, WA 60% 841353 ?/HATTREYS/MORO, OR 60% 841354 ?/COSTA/HEPPNER, OR 60%		MAS MAS MAS MAS	60.5 63.3 59.6 62.3 60.0	19.7 16.6 21.7 19.4 26.1	084 050 078 089	65.14 65.14 65.1 68.6	0.35 0.35 0.35 0.35	80.5 80.1 80.0 86.3	.056 .057 .058	5.00	1250 1250 1250 1255 1260	76.0 75.0 75.0 73.0
3/HEIMAN/KIILVILLE, WA STEPHENS/MURPHEY/CONDON MORO/MURPHEY/CONDON, OF STEPHENS (BIN 1)/COSTA/ STEPHENS (BIN 2)/COSTA/ ?/?/MORO, OR 60%	82%	SWW CLUB SWW SWW SWW	59.	22.0 27.5 21.5 21.4 23.3	108	64.2 66.9 63.6 66.0 61.0	0.35 0.33 0.34 0.35	78.5 83.8 78.3 81.3	082		22 20 13 13 25	999999
		WAS WAS WAS WAS	60.2 61.0 60.6 58.2 62.0	21.6 16.0 36.8 19.5	. 113 . 088 1. 202 . 121 . 198	64.5 63.4 64.2 64.1 60.6	0.32 0.37 0.34 0.36 0.35	80.3 76.5 79.0 77.8 72.9	.056 .047 .079 .087	6.50	1205 1190 1140 1175	73.0 70.0 66.0 69.0 72.0
		SWW SWW SWW SWW SWW SWW SWW	57.8 61.4 60.5 61.7 60.0	17.4 22.3 24.7 27.4 63.2	.122 .284 .507 .305	63.3 66.9 65.9 67.5 64.3	0.31 0.42 0.44 0.38 0.35	79.1 78.9 76.4 81.8 78.8	.068 .344 .337 .416	8.7 6.1 6.1 5.6	1245 1175 1175 1175	74.0 65.0 66.0 67.0 62.0
		SWN SWN SNAV SNAV SNAV	60.1 59.3 63.5 56.3 61.1	20.9 17.6 18.1 19.2	.080 .063 .065 .076	66.1 65.0 68.0 61.1 66.4	0.40 0.40 0.36 0.46 0.38	78.7 77.2 83.8 68.4 80.3	. 255 . 064 . 056 . 051	6.2	1175 1230 1195 1115	68.0 74.0 68.0 58.0 66.0
341376 2/ENTMAN/VALLEY FOFD, WA FOW 841377 2/ENTMAN/VALLEY FORD, WA 60% 841378 2/ENTMAN/VALLEY FOWD, WA 60% 841379 2/ANDERSON/HEPPNER, OR 60% 841380 2/2/2 60%		MMS WMS WMS WMS	58.7 51.4 60.6 61.5	20.3	.050	60.8 65.5 63.4 64.0 65.7	0.37 0.38 0.39 0.43	72.2 78.8 75.1 74.1 80.0		6.5	1215 1150 1200 1160	67.0 60.0 67.0 62.0 78.0
		SWW SWW SWW	63.3 59.6 62.3 60.0	19.7 16.6 21.7 19.4 26.1	.050 .050 .078 .089	70.7 70.5 70.8 70.6 74.0	0.35 0.36 0.37 0.37 0.36	82.5 82.8 81.9 82.3 88.5	.050 .050 .057 .140	55.7.0	1205 1160 1160 1180 1245	69.0 63.0 65.0 64.0 75.0
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 6% Prote	sis. rotein.		5/ Pa 6/ Pr	Particularl Promising O	rly Promi Overall	mising 1 Qual	Overall ity Chara	Qual	Char cs.	acteri	stics.	

<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis.  $\frac{3}{4}/$  Absorption at 14% Moisture Corrected to 6% Protein.  $\frac{4}{4}/$  Observed Values Corrected to 6% Protein.

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WA, OR

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO

LABNUM	ONGI	CLASS	TWT	MLN	MDSI	FYELD	FASH 1/	MSCOR	DSI	FPROT	CAVOL	SCSOR	RMKS
841390 STEPHENS/MURPHEY/CONDON, OR 70% 841391 MORO/MURPHEY/CONDON, OR 70% 841392 STEPHENS (BIN 1)/COSTA/HEPPNER, OR 7841393 STEPHENS (BIN 2)/COSTA/HEPPNER, OR 7841394 ?/?/MORO, OR 70%	70% 70%	SWW CLUB SWW SWW SWW	59.4 59.3 59.9 60.7 59.6	22.0 27.5 21.5 21.4 23.3	.118 .198 .108 .108	70.3 72.4 69.3 70.1 69.8	0.35 0.35 0.38 0.38	82.8 85.3 80.5 81.2	.073 .083 .056 .047	46.00	1175 1220 1090 1155 1240	70.0 74.0 65.0 69.0 76.0	
841395 ?/MUMM/PENDLETON, OR 70% 841396 ?/ORCOTT/UNION CO., OR 70% 841397 ?/COFFMAN/ATHENA, OR 70% 841398 STEPHENS/BLATCHFORD/HAINES, OR 70% 841399 ?/?/ST. JOHNS, WA 70%		MAS NAS SAM SAM SAM SAM	60.2 61.0 60.6 58.2 62.0	21.6 16.0 36.8 19.5 24.1	.113 .088 1.202 .121	69.9 68.8 69.9 69.7 66.5	0.34 0.38 0.37 0.36	82.8 80.6 80.7 81.2 76.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	8.8 5.8 7.0 7.1	1185 1180 1160 1160	72.0 70.0 59.0 63.0	
841400 ?/JONECO/FAIRFIELD, WA 70% 841401 ?/FELGENHAUER/FAIRFIELD, WA 70% 841402 ?/FELGENHAUER/FAIRFIELD, WA 70% 841403 ?/FODE/RITZVILLE, WA 70% 841404 ?/FODE/RITZVILLE, WA 70%		MAS MAS MAS MAS	57.8 61.4 60.5 61.7 60.0	17.4 22.3 24.7 27.4 63.2	.122 .284 .507 .305	67.1 71.9 72.8 72.8	0.45 0.46 0.49 0.42	74.6 79.6 76.9 82.9 80.7		80000	1205 1125 1100 1150	73.0 63.0 61.0 65.0 59.0	
841405 ?/CORNWALL/FAIRFIELD, WA 70% 841406 ?/?/RITZVILLE, WA 70% 841407 ?/?/SENNESSE, WA 70% 841408 ?/GINGRICH/SALEM, OR 70% 841409 ?/GINGRICH/SALEM, OR 70%		WWS SWW SWW SWW SWW	60.1 59.3 63.5 56.3 61.1	20.9 17.6 18.1 18.0	.164 .080 .063 .066	71.2 70.6 72.9 66.3	0.48 0.45 0.39 0.51 0.43	77.3 77.8 84.9 69.3 80.5	.246 .051 .059 .057	6.3 6.7 6.7 8.6 6.7	1120 1160 1135 1075	64.0 68.0 68.0 56.0 68.0	
841410 ?/ENTMAN/VALLEY FORD, WA 70% 841411 ?/ENTMAN/VALLEY FORD, WA 70% 841412 ?/ENTMAN/VALLEY FORD, WA 70% 841413 ?/ANDERSON/HEPPNER, OR 70% 841414 ?/?/? 70%		MMS MMS MMS MMS MMS	58.7 51.4 60.6 61.4 61.5	20.3 20.3 19.9 19.1		66.9 70.6 69.4 69.9 71.0	0.42 0.42 0.42 0.42	73.8 80.3 76.9 78.5 82.2	. 120 . 120 . 060 . 193	8.9 6.9 6.7 6.1	1205 1090 1125 11145	70.0 58.0 60.0 66.0 68.0	

4. Good correlations between the alpha-amylase methods were obtained but poor relationship with alpha-amylase and sponge cake baking These wheats were collected from farm storage in WA and OR for a continuation of a cooperative study with the Japanese Flour Milling (DSI) for alpha-amylase. We tested them by Falling Number, DSI, and sponge cake baking quality. Correlations are listed on page Assoc.(JFMA). Samples were split and one-half sent to Japan for their traditional analysis and evaluation of the dye test method were found. This data will be combined and compared with the JFMA results. COMMENTS:

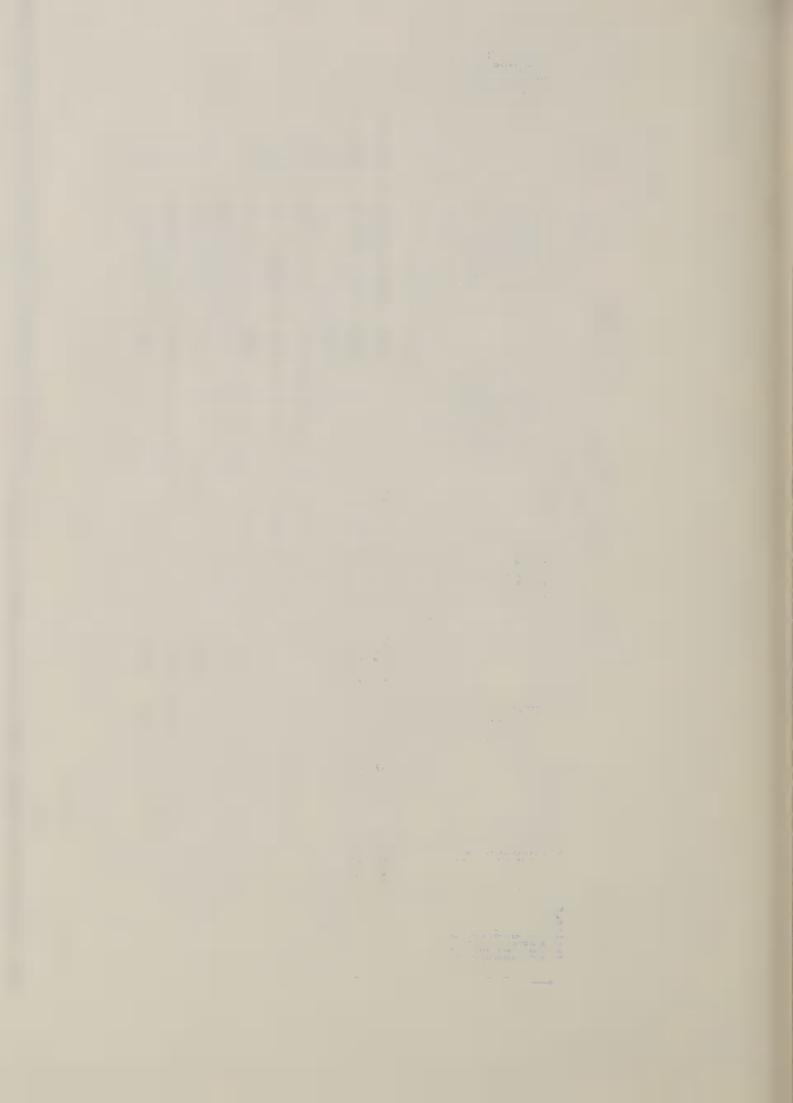
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USDA, SFA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO	58	LIND	, WA	•					E. DONAL	DONALDSON
LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
841419 841420 841421 841422 841422	HIN SIB//SHORT WHEAT/SUT AIL 66/CMN//CI17271 CARDON/N7106043 N73101/CARDON	N8200935 N8300301 N8300503 6/N8301103 N8302002	HRW HRW HRW HRW	64.3 64.9 65.2 64.4 64.8	74.0 70.7 69.3 71.3	0.39 0.41 0.41 0.44	88.8 82.0 81.1 82.3 83.5	11.9	62.4 61.5 62.0 62.4 61.7	22H 4H 3H 1H
841424 841425 841425 841426 841428	HAT3061/N7200021 HATTON CENTAURK/N7106074 TIDOD72/N7200052 HOMESTEAD/UT819164	6/N8302401 C1017772 5/N8303501 N8303902 6/N8304104	HRW HRW HRW HRW	63.5 62.4 64.7 63.4 63.7	71.9 73.0 72.5 70.7 72.3	0.42 0.42 0.43 0.41	84.6 85.8 83.9 85.2	13.1 10.9 12.4 12.6	61.3 62.8 62.3 63.5	2H 4H 2H 2H 2H
841429 841430 841431 841432 841433	9 WA7001/N7302003 0 17211/SDY//CERCO//N702 1 HA110N 2 CERCO/N7402705 3 CERCO/N7402705	N8304804 6/N8305201 C1017772 6/N8305901 5/N8305903	HRW SWW HRW HRW HRW	64.8 60.3 65.7 64.7 63.5	71.6 72.0 73.4 71.2	0.39 0.49 0.39 0.39	85.4 79.6 85.3 84.6 82.7	10.7	61.9 59.6 62.0 63.2 64.5	2H 22H 4H 5H
841434 841435 841436 841437 841438	4 ID0092/N7402703 5 ID0092/HATTON 5 ID0092/HATTON 7 ID0092/N7403301 8 ID0114/WA7001	N8306201 N8306201 N8306202 6/N8308502 5/N8308601	HRW HRW HRW HRW	63.5 64.9 64.7 64.7	70.6 69.3 70.4 70.9	0.52 0.46 0.36 0.36	77.2 81.5 79.1 86.0 84.6	0.01	64.4 63.8 63.6 63.4 63.7	3H 4H 4M 22H 22H
841439 841440 841441 841442 841443	9 100114/WA7001 0 HATTON 1 N7301901/PAHA 2 N7301901/PAHA 3 N7301901/PAHA	6/N8308603 C1017772 N8308701 6/N8308702 6/N8308702	HRW HRW HRW HRW	65.0 65.9 64.2 64.7 64.7	70.9 70.6 75.3 72.4 73.2	0.36 0.40 0.39 0.38	85.6 83.4 91.0 87.2 88.5	10.2 11.5 10.5 10.5 10.8	61.3 62.5 60.9 61.4 61.4	2 H H S S H S S H H S S H H S S H H S S H H S S H S S H S S H S
8411484 841445 841445 841447	# HTN SIB/WA7001 5 HTN SIB/C117271 6 N7402702/N7602301 7 N7402702/N7602301 8 WA6473/N7402707	5/N8308802 5/N8308901 6/N8309404 N8309406 6/N8309702	HRW HRW HRW HRW	64.7 64.3 64.4 62.9 64.0	73.2 71.8 72.9 72.6	0.41 0.40 0.42 0.48 0.48	86.6 84.8 85.3 82.1	7.11.77	65.1 61.2 62.2 61.0 62.1	4 H H C C C C C C C C C C C C C C C C C
841449 841450	9 WA6473/N7402707 0 HATTON	6/N8309704 C1017772	HRW	64.4 65.3	72.6	0.43	85.3	11.3	62.5 62.4	2H 2H
1/ Obse 3/ Abso 4/ Obse	Observed Values Corrected to 14% Moisture Basis. Absorption at 14% Moisture Corrected to 11% Protein. Observed Values Corrected to 11% Protein.	tein.		5/ Partic 6/ Promis	cularly sing Ove	omising 11 Quali	rall Qual Character	ity Charact istics.	eristics.	

E. DONALDSON

3.8

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 58

LIND, WA

I ABNUM VARIETY	ONGI	CLV	CLASS	BABS	BABSC 3/	MTIME	TAOL	LVOLC 4/	BCRGR	RMKS
841419 HTN SIB//SHORT WHEAT/SUT 841420 ATL 66/CMN//C117271 841421 CARDON/N7106043 841422 N73101/CARDON 841423 K73056/N7200023	N8200935 N8300301 N8300503 N8301103 N8302002		HRW HRW HRW HRW	64.0 64.1 64.6 65.0 64.3	63.6 64.2 63.7 64.1 63.4	2.2 3.0 2.8 2.4	850 860 910 915 810	825 866 854 859 754	6 Q-MTII 6 Q-FYEI 4 P-FYEI 3 7 P-LVOI	Q-MTINE&BCRGR Q-FYELD&BCRGR P-FYELD,Q-BCRGR P-LVOL&BCRGR
841424 K73061/N7200021 841425 HATTON 841426 CENTAURK/N7106074 841427 100072/N7200052 841428 HOMESTEAD/UT819164	N8302401 C1017772 N8303501 N8303902 N8304104		HRW HRW HWW HRW	65.1 63.1 65.4 64.9 65.8	63.0 62.6 65.5 63.5 64.2	2.28	910 835 955 915 950	780 804 961 828 851	2 Q-MTIME 4 PARA Wh 3 Q-FYELD 3 Q-MTIME	.ME White LD ME
841429 WA7001/N7302003 841430 17271/SDY//CERCO//N702 841431 HATTON 841432 CERCO/N7402705 841433 CERCO/N7402705	N8304804 N8305201 C1017772 N8305901 N8305903		HRW SWW HRW HRW	64.3 59.1 65.0 66.7 68.2	64.6 58.3 64.7 65.9 67.2	2.4 2.5 3.7	850 955 855 870 920	869 907 836 820 858	6 P-BCRGR 2 Soft Wh 5	BCRGR ft White?
841434 100092/N7402703 841435 100092/HATTON 841436 100092/HATTON 841437 100092/N7403301 841438 100114/WA7001	N8306001 N8306201 N8306202 N8308502 N8308502		HRW HRW HRW HRW	65.6 66.4 64.8 65.2 65.5	65.6 66.5 65.3 65.1	2.1 2.0 1.5	840 835 810 860 825	840 841 841 854 819	5 P-ASH 5 Q-FYELD 6 P-BCRGR 5	0 8
841439 1D0114/WA7001 841440 HATTON 841441 N7301901/PAHA 841442 N7301901/PAHA 841443 N7301901/PAHA	N8308603 C1017772 N8308701 N8308702 N8308703		HRW HRW HRW HRW	62.4 64.4 59.6 61.6	63.0 64.2 60.1 61.1	080000	860 800 755 870 850	897 788 786 839 862	5 8 VP-BCRGR 5	GR
841444 HTN SIB/WA7001 841445 HTN SIB/C117271 841446 N7402702/N7602301 841447 N7402702/N7602301 841448 WA6473/N7402707	N8308802 N8308901 N8309404 N8309406 N8309702		HRW HRW HRW HRW	66.5 63.2 63.6 63.9	65.8 63.4 62.4 63.7 63.3	25.1.8.1. 2.1.5.2.0.	970 930 890 810 895	927 936 840 816 858	3 4 5 6 Q-BCRGR 4	œ
841449 WA6473/N7402707 841450 HATTON	N8309704 C1017772		HRW 6	64.5 63.4	64.2 63.1	1.9	875 830	856	22	

COMMENTS: All samples were lower in loaf volume, shorter in dough mixing requirement, and poorer in crumb grain score than normal based on the performance of Hatton. Judgement for overall performance was based on the performance of Hatton check for each group.

VP = Very Poor; P = Poor; Q = Questionable

NURSCO 59			TULELAKE,	CA					Y.P. PURI	-
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
841463 ANZA (11A-0) 841464 YECORA ROJO (16A-0) 841465 YECORA ROJO (16B-100) 841466 ANZA (11B-100) 841467 ANZA (11C-200)	(16A-0) (16B-100) (0)	C1015284 C1015284 C1015284	HRS HRS HRS HRS	63.2 64.8 64.0 64.0	70.4 69.6 69.8 70.7 70.3	0.36 0.40 0.38 0.36	87.0 84.3 85.7 87.4 86.8	8.0 9.1 7.8 9.0	55.8 60.0 56.2 56.2	2L 8M 8M 2L 2N
841468 YECORA ROJO (16C-200) 841469 YECORA ROJO (16D-300) 841470 ANZA (11D-300)	(16C-200) (16D-300)	C1015284	HRS HRS HRS	63.6 61.6 62.4	70.1 69.9 70.1	0.36 0.37 0.36	86.6 86.0 86.9	10.0	60.4 61.2 55.7	25 A A A A A A A A A A A A A A A A A A A
LABNUM	VARIETY	ONGI	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
841463 ANZA (11A-0) 841464 YECORA ROJO (16A-0) 841465 YECORA ROJO (16B-100) 841466 ANZA (11B-100) 841467 ANZA (11C-200)	(16A-0) (16B-100) 00)	C1015284 C1015284 C1015284	HRS HRS HRS HRS	56.5 61.1 62.6 56.7	57.5 61.0 62.7 57.9	1 1 4 7 . 6	450 815 800 575 605	512 809 806 649 605	07700	
841468 YECORA ROJO (16C-200) 841469 YECORA ROJO (16D-300) 841470 ANZA (11D-300)	(16C-200) (16D-300) 00)	C1015284	HRS HRS	64.1 66.7 57.7	63.1 63.9 57.4	4.1 3.6 1.9	875 955 630	813 781 611	000	
1/ Observed Values C 3/ Absorption at 14% 4/ Observed Values C	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 9% Protein. 4/ Observed Values Corrected to 9% Protein.			5/ Part 6/ Prom	Particularly Promising Overall Quality Characteristics Promising Overall Quality Characteristics.	omising Ov 11 Quality	erall Qual Character	ity Characistics.	teristics.	

COMMENTS: Both milling and baking results are normal for each cultivar at all fertility levels. Higher levels of fertility increased the protein level and the corresponding loaf volume response.

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NURSCO 60

I ABNUM	VARTETY	IDNO	OF WOO		1/	1/1	3/			LVOL	4/
841471 PAHA 841472 841473 841474 841474		6/0R814 5/0R814 5/0R814 6/5N354-78 C1017419	CL UB CL UB CL UB CL UB SWW	78.6 78.2 77.0 74.6	0.42 0.41 0.43 0.42 0.42	6.8 7.1 7.3 7.3	52.2 51.8 56.7 55.4 54.5	28 63 53 47 60	45 65 74 61		
		6/ ORCW8113 6/ ORCW8314 6/ ORCW8318 6/ WA6912 6/ 1D745318	MMS MMS MMS MMS MMS	76.8 78.6 76.6 79.3	0.40 0.44 0.40 0.40 0.39	7.7	54.4 54.1 54.9 53.0 54.9	524 524 527	55 56 50 50 50 50 50		
841481 841482 WARED 841483		6/10248 C1015926 6/WA7075	SWS HRS HRS	77.4	0.47	9.6	53.0 58.9 60.3	79 171 206	52 75 79	975	727 675
LABNUM	VARIETY	ONOI	CLASS	MIYPE	1000	CODIC 4/	CAVOL	SCSOR	WTIN	NOSCO	RMKS
841471 PAHA 841472 841473 841474 841474		C1014485 OR814 SN121-81 SN354-78 C1017419	CLUB CLUB CLUB CLUB SWW	12822	9.24 9.10 8.66 9.10	9.19 9.09 8.59 9.05	13.18 12.88 11.35 12.98	82.0 78.0 67.0 79.0	360 360 330 382 360	73 67 71 72	P-CODI,CAVOL&NOSCC
841476 841477 841478 841479 841480		0RCW8111 0RCW83111 0RCW8318 WA6912 1D745318	MMS MMS MMS	22 31 31 31	8.79 9.22 8.66 8.80 8.67	8.75 9.11 8.65 8.80 8,68	1305 1305 1300 1320	79.0 80.0 80.0 80.0 75.0	355 340 359 361 364	69 69 69 69	P-NOSCO Equal to Daws
841481 841482 WARED 841483		1 D2 48 C 1 0 1 5 9 2 6 WA 7 0 7 5	SWS HRS HRS	41. 2H	9.02 8.26 8.01	9.20	1300	80.0	358 351 360	1199	P-NOSCO BCRGR = 4 BCRGR = 3

COMMENTS: Milled on Miag pilot mill and sub-samples of flour distributed to PNW Collaborators for their evaluation. See accompanying report

for results of domestic and foreign collaborators.

NURSCO 61

DUAL PURPOSE MIAG TESTS

NURSCO 61		<b>X</b>	ROYAL SLO	SLOPE, WA						Ö	C.F. KON	KONZAK
LABNUM	VARIETY	ONGI	CLASS	FYELD	FASH MSC	MSCOR FPROT MABSC BABS	T MABSC	BABS	BABSC	BABSC MTIME LVOL		LVOLC
				and the second s	1	1/	3/		3/			4/
841484 EDWALL 841485 MCKAY 841486 841487 841488		P1477919 C1017903 WA7186 WA7188	SWS HRS SWS SWS SWS	76.2 75.8 78.3 76.6	0.51 0.50 0.47 0.55	0.01 0.00 0.02 0.03 0.04	54.4 61.1 56.9 56.0	55.0 63.3 56.5	56.1 63.3 58.6 56.7	133.6	755 880 810 875	821 883 858 887 887
841489		K8005223	SMS	0	0 0	9.7		58.1	58.4	2 5	835	853
LABNUM	VARIETY	ONOI	CLASS	MIYPE	MIYPE BCRGR CODI		CODIC CAVOL	SCSOR WIIN	WIIN	NOSCO R	RMKS	
841484 EDWALL 841485 MCKAY 841486 841487 841488		P1477919 C1017903 WA7186 WA7188	SWS HRS SWS SWS SWS	0 M M M M M M M M M M M M M M M M M M M	88.8 9.8 6.7 8.6 7.8 8.6 7.8	67 8.55 30 8.30 74 8.65 61 8.58 44 8.51	1225 1130 1220 1180 1250	72.0 65.0 70.0 69.0	389 358 348 356 356	70 63 64 Q-B 63 Q-B	SCRGR&NC	Q-BCRGR&NOSCO Q-BCRGR,NOSCO&SCSOR
841489		K8005223	SMS	цM	5 8.3	8.28	1190	0.07	360	63 P-C	P-COOKIE D	DIA. Q-BCRGR
1/ Observed Values C 2/ Absorption at 14% 4/ Observed Values C	1/ Observed Values Corrected to 14% Moisture Basis. $2/$ Absorption at 14% Moisture Corrected to 10% Protein. $4/$ Observed Values Corrected to 10% Protein.	Basis. 0% Protein.		5/ 6	Particularly Promising Overall Quality Characteristics Promising Overall Quality Characteristics.	ly Promis Overall (	sing Ove Quality	rall Qua	ality Cheristics	naracteri	istics.	

These four soft white springs have been selected for their dual purpose baking characteristics. WA7186, 88 and 89 have acceptable K8005223 has poor CODI and noodle Mixograms determined at the USDA, CODI and LVOL, but WA7186 and 88 have some questionable properties for noodles and sponge cake. score. It appears similar to McKay. The promising selection in all dual proterties is WA7189. ARS, GMRC are included along with their bread baking data on page 2. COMMENTS:

Table 1.\* Chemical, Milling, and Bread-making Data for Samples of Dual-Purpose Flours from Pullman, WA in 1985, 1/2/

emulov ls	07		Smil xiM	ngnoa	herou	Absor			
Corrected 10% Protei	As Rec¹d	Crumb	At 12% Protein4/	As Rec'd	At 12% Protein3/	As Rec'd Protein	Protein	ИзА	Sample No.
<b>L</b> 98	708	s-o	n <del>t</del> t	55	0.19	7°95	1.6	īs.	787178
698	£88	s-ò	₹E	77	0.29	0.62	10.2	05.	\$87178
L78	008	s-ò	5¥ 6	3\$	<b>ታ°</b> ረና	6.£2	٤°6	۲۶°	987178
058	843	S	ò ₹7	34	2.98	1°75	10.2	۲۶.	487178
498	016	S	35	<del>{</del> †	6.88	6*95	9.01	65.	887178
822	258	S	3	33	1.88	۲.22	10.2	75.	687179

<sup>2/ 5,</sup> Q, and U - Satisfactory, questionable, and unsatisfactory with respect to property in question.

<sup>3/ [(</sup>Abs. -42) protein] X 12 + 42. 4/ MT - MT (12 - protein) 0.12.

		* * * * * * * * * * * * * * * * * * * *
087178	887178	287178
937178	\$85T78	787175

Fig. 1. \*Mixograms of dual-purpose flours from Pullman, WA in 1985.

<sup>\*</sup> From USDA, ARS, CMRC, Manhattan, KS

PRELIMINARY HARD RED WINTER

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PUILMAN, WA.

NURSCO	62			LIND, WA						E. DONA	DONALDSON
LABNUM	VARIETY	ONO		CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MIYPE
8411491 8411491 8411493 8411493 8411493	HATTON 173467/GNS//MC/3/TP107/S 173467/GNS//MC/3/TP107/S 173467/GNS//MC/3/TP107/S 173467/GNS//MC/3/TP107/S	6/ C10177 N84020 N84020 N84020 N84020	772 005 001 002	HRW HRW HRW HRW	65.6 63.6 62.8 64.4	72.8 72.7 69.1 71.8 73.5	0.38 0.33 0.37 0.33	88.6 91.0 85.2 90.0	11.0	61.0 61.1 60.7 60.9 61.2	2 2 3 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
841495 841496 841497 841498 841499		N84034 N84047 N84047 N84047 N84071	403 702 701 101	HRW HRW HRW HRW	64.4 63.2 63.2 64.4 63.2	73.2 72.7 70.9 69.8 69.9	0.34 0.35 0.35 0.37 0.37	90.9 90.2 88.1 86.1	10.4 10.5 9.1 11.4	58.8 59.8 59.3 59.6 60.4	######################################
841500 841501 841502 841503 841504	N7106074/N7300401 HATTON N7200043/OSAGE N7200043/OSAGE N7200043/OSAGE	N84002 C10177 C10177 N84003 N84003	201 772 301 302 303	HRW HRW HRW HRW	65.2 65.6 63.6 63.6	73.4 73.3 70.3 71.2	0.29 0.33 0.31 0.31	93.8 91.7 89.4 90.3	10.5	61.8 60.9 60.7 60.2 60.3	23 W W W W W W W W W W W W W W W W W W W
841505 841506 841507 841508 841508	N7200052/CARDON N7200052/CARDON N7200052/CARDON N7301903/N7300301 HATTON	N84004 N84004 N84004 N84005 C10177	401 402 403 501 772	HRW HRW HRW HRW	62.8 62.8 64.0 63.6 65.2	71.4 72.2 72.5 71.7	0.30 0.31 0.31 0.31	91.1 91.5 92.2 90.8	9.111.9	56.6 60.2 59.8 60.1	33M 4H 4M 4M
841510 841511 841512 841513 841514	WA7001/N74064 WA7001/N74065 9342/1T//K6901526/3/CLE/ 9342/1T//K6901526/3/CLE. N7000134/3/SM7437/MC//CE	N8400701 N8400801 N8400902 N8400901 N8401001	701 801 902 901	HRW HRW SRW HRW HRW	62.8 62.8 64.0 63.6 64.0	69.4 71.1 64.5 72.8 69.2	0.35 0.31 0.28 0.34 0.36	86.5 90.6 84.9 90.6 85.9	9.4 10.9 9.9 10.7	59.1 59.8 59.0 58.7 60.0	W W W H W H W H W H W H W H W H W H W H
841515 841516 841517 841518 841519	HATTON N7001716/K6901676//17271 N6700054/SM7437//CER/3/N N6700054/SM7437//CER/3/N	C101777 N840136 N840156 N840156 N840156	772 301 504 501	HRW HRW HRW HRW	65.2 64.0 63.2 64.0 63.2	72.1 70.7 72.6 71.3	0.31 0.31 0.31 0.32	91.2 89.9 92.2 90.6 89.0	10.8	60.6 60.2 59.3 59.4 62.4	21 M M M M M M M M M M M M M M M M M M M
841520 841521 841522 841523 841523	N6700054/SM7437//CER/3/N SM7437/MC//HNL/3/N700013 SM7437/MC//HNL/3/N700013 167822/13438//WSR/3/N700 FREDRICK/SPRAGUE	6/ N840176 N840176 N840176 6/ N840196 N840216	503 701 702 901	HRW HRW HRW HRW	64.4 65.2 64.0 64.8 63.2	71.3	0.32	89.9 90.3 89.8 89.8	10.9	60.1 58.1 58.6 62.4 58.9	42 H A A A A A A A A A A A A A A A A A A
1/ Obse	1/ Observed Values Corrected to 14% Moisture Basis.				5/ Parti	cularly Pr	romising Ov	Aprall Oual	i + v Cha	ractoriction	

<sup>1/</sup> Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 10% Protein. 4/ Observed Values Corrected to 10% Protein.

<sup>5/</sup> Particularly Promising Overall Quality Characteristics. 6/ Promising Overall Quality Characteristics.

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WESTERN WHEAT QUALITY LAB

PULLMAN, WA.

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RED 1 Q-BCRGR, P-LVOL 4 Q-BCRGR, P-LVOL 5 Q-FYELD O-BCRGR, P-LVOL P-BCRGR SOFT F P-LVOL&BCRGR P-BCRGR Q-BCRGR, MT IME 4 Q-BCRGR&L VOL Q-BCRGR&LVOL Q-BCRGR&LVOL RMKS E. DONALDSON Q-MTIME Q-BCRGR Q-BCRGR Q-BCRGR Q-BCRGR P-BCRGR P-BCRGR P-BCRGR P-BCRGR Q-BCRGR P-BCRGR P-MTIME P-MT IME BCRGR ENINDE £3050 - # 00 5 m 2 m 2 LVOLC 4 850 768 863 805 884 866 782 863 884 822 838 826 826 844 812 782 879 818 852 834 821 797 808 815 832 849 788 783 849 891 817 854 866 850 855 925 900 865 830 915 810 825 950 915 890 950 925 910 900 905 900 960 868 815 890 815 840 870 LVOL 865 900 985 825 820 905 910 860 935 885 MTIME 3.6 1.9 3.0 3.0 3.0 3.0 2.5 3.5 3.2 52222 52223 50229 1.9 BABSC 62.2 63.1 63.4 61.6 60.5 60.5 62.5 61.3 62.1 20400 80000 59.3 61.5 60.7 60.4 61.3 61.9 60.0 61.1 65.6 0 0 0 0 3/ 61. 501... BABS 62.2 64.5 64.4 62.6 64.1 62.5 63.7 63.2 63.5 63.1 58.2 63.4 63.4 63.1 58.7 62.4 60.6 61.1 9000 27507 61.7 60.1 65.4 59.9 62. 63. 62. 60. 61. 62. 63. X LIND. CLASS HRW HRW HRW HRW IRW IRW HRW HRW HRW HRW SRW HRW HRW HRW HRW HRW HRW HRW HRW HRW KW C1017772 N8402005 N8402002 N8402004 N8403403 N8404702 N8404701 N8407101 N8400102 C1017772 N8400301 N8400302 N8400303 N8400401 N8400402 N8400403 N8400501 N8401702 N8401901 N8402101 C1017772 N8401301 N8401504 N8401501 N8401503 N8401701 N8400902 N8400901 N8401001 N8402001 N8400201 C1017772 N8400701 N84100801 I DNO 18401 ) WA7001/N74064 ) WA7001/N74065 2 9342/11//K6901526/3/CLE/ 3 9342/11//K6901526/3/CLE. 173467/GNS//MC/3/TP107/S 173467/GNS//MC/3/TP107/S 173467/GNS//MC/3/TP107/S 173467/GNS//MC/3/TP107/S N7001716/K6901676//17271 N6700054/SM7437//CER/3/N N6700054/SM7437//CER/3/N N6700054/SM7437//CER/3/N N6700054/SM7437//CER/3/N SM7437/MC//HNL/3/N700013 SM7437/MC//HNL/3/N700013 167822/13438//WSR/3/N700 FREDRICK/SPRAGUE CER/N7407202/N7401202 N7403901/C117271 N7403901/C117271 N7404002/N7503801 K7101348/P1192387 VARIETY N7106074/N7300401 N7200052/CARDON N7301903/N7300301 N7200052/CARDON N7200052/CARDON N7200043/0SAGE N7200043/0SAGE N7200043/0SAGE HATTON HATTON HATTON 62 841510 841511 841512 841513 841514 841515 841516 841517 841518 841519 841490 841491 841492 841493 841493 841495 841496 841497 841498 841499 841500 841501 841502 841503 841504 841505 841506 841507 841508 841509 841520 841521 841522 841523 841523 NURSCO LABNUM

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USDA, SEA AR WESTERN WHEAT QUALITY LAB.

PULLMAN, WA.

2 P-LVOL 5 P-LVOL&BCRGR 3 P-LVOL&BCRGR 3 P-LVOL&BCRGR RMKS 3 2 Q-FYELD 4 P-BCRGR E. DONALDSON 2 2 3 5 P-BCRGR 6 P-BCRGR 6 P-BCRGR 6 P-BCRGR 5 P-BCRGR 5 P-BCRGR 6 P-BCRGR 6 P-BCRGR 6 P-BCRGR 6 P-BCRGR 2 3 4 P-BCRGR 6 P-BCRGR 6 P-BCRGR 3 3 3 6 P-BCRGR 4 P-BCRGR 4 P-BCRGR 4 P-BCRGR P-LVOL BCRGR LVOLC 900 855 835 916 800 817 930 892 838 831 933 816 760 847 809 849 865 852 844 821 4 820 880 842 878 840 858 949 790 816 831 800 770 792 781 860 930 880 850 800 908 890 810 835 840 840 895 980 815 810 LVOL 880 815 840 850 840 820 830 805 835 835 775 800 795 835 800 MTIME 3.9 4.2 4.3 4.3 3.6 23.02.02.02.02.00.00.00 2.0 2.5 2.0 2.0 23333 23337 3.5 3.5 3.4 3.4 - 9855 33535 BABSC 63.3 63.4 61.5 60.8 61.9 63.1 60.9 61.0 60.9 63.2 62.1 59.9 60.9 60.4 61.9 61.4 60.6 61.1 62.0 61.0 61.9 3/ 86630 3080K 60. 62. 63. 63. 62. 62. 59. 64.1 65.1 62.3 59.9 61.3 62.6 63.1 60.7 61.2 62.2 BABS 60.5 64.4 62.9 59.7 61.4 60.9 61.1 61.2 60.7 61.4 61.1 61.2 60.4 61.4 59.9 60.0 62.9 63.1 64.0 27502 62. 60. 61. X LIND. CLASS HERE WERE HRW HRW HRW HRW HREE HREE HRW C1017772 N8402501 N8402602 N8402603 N8402604 N8403402 N8403501 N8403602 N8403603 N8403601 N8403701 N8403702 N8403703 N8403704 N8404302 N8404303 N8404304 N8402302 N8403801 N8403901 C1017772 N8404101 N8404102 N8404201 N8404202 C1017772 N8403201 N8403301 N8402901 N8403001 N8403405 18403401 18402301 N8402601 N8403101 DNO CER/N7407202//N7401202 CER/N7407202//N7401202 CER/N7407202//VJ075238 N7001716/WA5136//J0-0302 N7001716/WA5136//J0-0302 N7001716/WA5136//J0-0302 KAVKAZ/C117271 KAVKAZ/C117271 KAVKAZ/C117271 KAVKAZ/C117271 K7101348/3/TP-107//N6700 K7101348/3/TP-107//N6700 VARIETY CBO/A65257-W-5-7-2 CER/N7407202//N7401202 HTN SIB/WA7001 HTN SIB/WA7001 N7402707//C117271 N7402707//C117271 CERCO/N7402705 CERCO/N7402705 CERCO/N7402705 N7401606/WA6365 CERCO/N7200044 CERCO/N7402705 N7301902/SAGE N7401606/REQUA N7401612/PAHA N7401612/PAHA CER/C117271 CER/WA7001 HATTON HATTON HATTON CD/MC 62 841525 841526 841527 841528 841528 841530 841531 841532 841533 841533 841535 841536 841537 841538 841538 841540 841541 841542 841543 841543 841545 841546 841547 841548 841549 841550 841551 841552 841553 841553 841555 841556 841557 841558 841559 NURSCO LABNUM

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PRELIMINARY HARD RED WINTER

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

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WESTERN WHEAT QUALITY LAB.

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3 P-LVOL, Q-BCRGR 8 P-L VOL&BCRGR 8 P-L VOL&BCRGR 8 P-L VOL&BCRGR 6 P-L VOL&BCRGR 8 P-L VOL&BCRGR 8 P-LVOL&BCRGR 8 P-LVOL&BCRGR 3 P-FYELD 6 P-LVOL&BCRGR 8 P-LVOL&BCRGR 8 P-LVOL&BCRGR P-LVOL&BCRGR P-LVOL&BCRGR P-LVOL&BCRGR P-LVOL&BCRGR P-LVOL&BCRGR P-LVOL&BCRGR RMKS 3 Q-BCRGR 4 Q-BCRGR 14 3 E. DONALDSON 4 Q-BCRGR P-MTIME P-FYELD 3 P-MTIME P-BCRGR P-BCRGR P-BCRGR P-BCRGR P-BCRGR BCRGR 00000 4 9 LVOLC 796 875 819 830 815 835 823 738 815 840 651 651 686 647 669 682 692 760 721 743 673 837 738 730 937 4 909 840 825 785 795 829 891 893 882 774 790 850 825 805 840 860 848 775 865 815 750 760 765 750 775 785 890 820 780 1017 760 825 825 755 900 853 865 875 810 820 910 910 955 780 MTIME 33.7.23 1.0 2.0 3.0 3.0 1.4 2.0 2.0 1.9 1.7 22.4 22.4 1.5 22.4 23.3 4.0 23.3 3.50 BABSC 58.9 59.5 62.3 60.8 60.8 60.7 62.4 63.3 59.1 59.9 58.9 60.0 万田日 61.3 58.6 62.1 95000 0 t t 0 m 3/ 59. 58. 60. 60. 60. 61. 63. 60. 61. 62. 63. 60. 60.7 60.3 62.5 62.9 64.0 59.3 60.2 63.1 60.4 BABS 60.6 59.6 62.6 62.4 60.0 58.7 60.2 62.7 59.0 61.5 58.7 61.9 64.7 60.6 61.6 62.2 63.4 64.1 NO-09 60. 60. LIND. WA CLASS HRW 1RW C1017772 N8404601 N8405206 N8405207 C1017772 N8405101 N8405502 N8405602 C1017772 N8406002 N8406202 N8406402 N8406504 N8406505 N8405701 N405702 N8405801 N8404402 N8405205 N8405202 N8406503 N8404501 N8405003 18405203 N8405204 18405201 N8405603 N8405902 N8405903 18404401 1840480 N8404901 N8405501 N8405601 8406001 DNO VARIETY PAHA PAHA N7403901/WA7001 N7405901/N7402705 SPRAGUE/LINDON OR SPRAGUE/LINDON OR N7403803/10000114 KASCHITZER/WANSER N7403301/C117271 N7301004/WA7003 N7301004/WA7003 LINDON/N7602206 WA6366/N7602301 WA6366/N7602301 WA6366/N7602301 ALLEN#64/WA6367 ALLEN#64/WA6367 LINDON/N7602206 WA6365/N7602601 LARNED/N7504201 N7406601/PAHA HATTON KAVKAZ/WA7003 KAVKAZ/MCCALL KAVKAZ/WA7001 KAVKAZ/WA7003 KAVKAZ/WA7003 KAVKAZ/MCCALL KAVKAZ/MCCALL KAVKAZ/MCCALL KAVKAZ/MCCALL KAVKAZ/MCCALL KAVKAZ/MCCALL KAVKAZ/WA7001 LND/WA6368 HATTON HATTON 62 841560 841561 841562 841563 841564 841571 841571 841572 841573 841573 841575 841576 841577 841578 841578 841580 841581 841582 841583 841583 841585 841586 841587 841588 841589 841565 841566 841567 841568 841568 841590 841591 841592 841593 841594 NURSCO LABNUM

PRELIMINARY HARD RED WINTER

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 62		LIND,	WA					E. DONA	DONALDSON
LABNUM	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MIYPE
841595 WA6366/N7602301 841596 WA6366/N7602301 841597 WA6366/N7602301 841598 WA6367/N7602101 841599 WA6367/N7602101	6/ N8406506 6/ N8406501 N8406502 5/ N8406601	HRW HRW HRW HRW	64.4 63.6 63.6 63.2	71.0	0.35 0.35 0.35 0.37	888.6 89.0 889.1 889.5	10.6 11.4 11.5	61.9 63.0 62.3 62.6 61.8	332E
841600 WA6368/LARNED 841601 WA6368/LARNED 841602 WA6368/(N75501404 OR N760 841603 N7402702/N7504201 841604 N7402702/N7504201	0/ N8406701 5/ N8406702 5/ N8406801 6/ N8406902	HRW HRW HRW HRW	63.6 64.0 63.6 64.8 64.8	69.7 69.4 72.3 71.8	0.33 0.32 0.32 0.32	87.7 87.4 90.9 90.8 87.7	10.5 11.3 10.1	62.3 62.8 60.7 62.2	HWHH HWHH
841605 N7402702/N7504201 841606 N7402702/N7504201 841607 HATTON 841608 N7402602/N7504201 841609 N7402702/N7602205	6/ N8406904 6/ N8406905 C1017772 N8406901 N8407003	HRW HRW HRW HRW	64.0 64.0 65.6 63.6 64.8	69.6 71.1 72.1 68.7	0.33 0.37 0.33 0.34 0.35	87.9 87.5 90.4 86.6 86.6	10.6 10.6 9.5 10.2	63.3 62.9 61.5 61.2	44 44 64 38 38
841610 N7402702/N7602205 841611 N7402702/N7602205 841612 N7402702/N7602205 841613 N7405001/N7602301 841614 N7405001/N7602301	6/ N8407004 N8407001 6/ N8407002 6/ N8407203 6/ N8407204	HRW HRW HRW HRW	63.2 63.6 62.8 63.2 64.4	71.7 70.2 71.0 69.9	0.36 0.37 0.39 0.36 0.32	88.7 86.3 86.3 90.7	10.7 11.1 10.9 10.9	61.3 61.6 61.1 61.1	H10 H10 H10
841615 N7405001/N7602301 841616 N7405001/N7602301 841617 N7500703/N7601301 841618 N7500703/N7601301 841619 N7500801/N7600902	N8407201 N8407202 N8407303 N8407301 N8407501	HRW HRW HRW HRW	63.6 64.4 63.2 63.2 63.2	69.2 70.3 72.5 70.0	0.33 0.33 0.34 0.34	88.5 88.3 90.9 87.7 88.5	10.7 11.3 11.5 10.2	62.3 62.6 63.5 63.5	μη 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
841620 N7509901/N7603001 841621 N7503302/N7504202 841622 N7503302/N7504202 841623 N7503302/N7602301 841624 N7503302/N7602301	6/ N8407701 N8407801 N8407802 N8407901 N8407902	HRW HRW HRW HRW	64.0 62.8 62.4 63.6 62.8	71.1 68.2 68.0 69.7	0.33 0.32 0.32 0.33	89.5 87.3 86.9 87.9	11.0	63.2 61.6 61.5 62.3 62.8	33H 4H 4H
841625 N7503302/N7602301 841626 HATTON 841627 NUGAINES 841628 MORO 841629 N7001716/K6901676//N7000	N8407903 C1017772 C1013968 C1013740 N8401202	HRW HRW SWW CLUB HWW	62.4 65.2 64.8 62.8 64.0	69.8 71.5 66.1 70.1 71.1	0.31 0.32 0.32 0.32	89.3 90.1 84.8 89.7 91.5	11.5 10.7 8.8 10.0	61.4 61.3 58.1 57.3 60.5	2000 2000 2000 2000 2000 2000 2000 200

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.	PRELIMIP	PRELIMINARY HARD RED	RED WINTER	ER				CONTD, PAGE 4
NURSCO 62		LIND,	WA					E. DONALDSON
LABNUM VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	TAOL	LVOLC 4/	BCRGR RMKS
841595 WA6366/N7602301 841596 WA6366/N7602301 841597 WA6366/N7602301 841598 WA6367/N7602101	N8406506 N8406501 N8406502 N8406601 N8406601	HRW HRW HRW	64.2 67.2 64.6 62.8 63.0	63.6 65.8 61.3 61.5	33.00 20.00 20.00	860 930 860 943 1005	823 843 850 912	3 6 P-BCRGR 2
841600 WA6368/LARNED 841601 WA6368/LARNED 841602 WA6368/(N75501404 OR N760 841603 N7402702/N7504201 841604 N7402702/N7504201	N8406701 N8406702 N8406801 N8406902 N8406903	HRW HRW HRW HRW	64.5 64.7 62.7 63.0	64.0 64.5 61.4 62.9 63.8	2.2 2.1 2.4 3.6	900 895 985 875 850	869 883 904 869 831	5 P-BCRGR 2 Q-MTIME 2 3
841605 N7402702/N7504201 841606 N7402702/N7504201 841607 HATTON 841608 N7402602/N7504201 841609 N7402702/N7602205	N8406904 N8406905 C1017772 N8406901 N8407003	HRW HRW HRW HRW	65.1 64.2 64.2 62.7 63.1	655.0 633.6 623.2 62.9	23.5 23.5 23.5 25.5 25.5 25.5 25.5 25.5	835 870 900 765 850	829 863 796 838	3 2 2 6 P-LVOL&BCRGR 8 P-BCRGR
841610 N7402702/N7602205 841611 N7402702/N7602205 841612 N7402702/N7602205 841613 N7405001/N7602301 841614 N7405001/N7602301	N8407004 N8407001 N8407002 N8407203 N8407204	HRW HRW HRW HRW	63.7 64.4 62.6 62.7 65.5	63.0 63.3 61.7 64.5	33.00.7	875 915 950 950 880	832 847 894 894 818	3 4 Q-BCRGR 3 2 2
5 N7405001/N7602301 6 N7405001/N7602301 7 N7500703/N7601301 8 N7500703/N7601301 9 N7500801/N7600902	N8407201 N8407202 N8407303 N8407301 N8407501	HRW HRW HRW HRW	64.7 63.1 64.2 65.4 63.7	64.0 61.8 62.7 65.2 63.4	23.3	835 938 918 855 800	792 857 825 843 781	4 Q-LVOL&BCRGR 4 Q-BCRGR 4 Q-BCRGR 6 Q-BCRGR 8 Q-LVOL&BCRGR
841620 N7500901/N7603001 841621 N7503302/N7504202 841622 N7503302/N7504202 841623 N7503302/N7602301 841624 N7503302/N7602301	N8407701 N8407801 N8407802 N8407901 N8407901	HRW HRW HRW HRW	63.4 64.4 65.2 65.2	62.9 63.3 64.0 64.0	3.202.2	888 875 865 888	857 807 793 791	3 Q-LVOL 4 Q-LVOL&BCRGR 4 Q-LVOL&BCRGR 2 Q-FYELD
841625 N7503302/N7602301 841626 HATTON 841627 NUGAINES 841628 MORO 841629 N7001716/K6901676//N7000	N8407903 C1017772 C1013968 C1013740 N8401202	HRW HRW SWW CLUB HWW	64.6 63.7 55.6 56.0 63.1	63.1 63.0 56.8 56.0 62.2	2.5 1.0 3.6	825 890 865 915 910	732 847 939 915 856	8 P-LVOL&BCRGR 2 B P-MTIME&BCRGR 8 P-MTIME&BCRGR 5 P-BCRGR
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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.	PRELIMINAR	IARY HARD RED	RED WINTER	~				CONTD, PAGE 5
NURSCO 62		LIND, WA	<				-	E. DONALDSON
LABNUM	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR RMKS
841630 N7001716/K6901676//N7000 841631 841632 841633 K7101348/3/TP-107//N6700 841634 K7101348/3/TP-107//N6700	N8401201 N8402201 N8402202 N8402303 N8402304	HWW HRW HRW HRW SWW	64.7 55.5 55.5 59.4 58.3	63.4 55.9 56.2 59.0 57.9	3.7 2.8 3.4 2.6 2.5	950 965 935 920 925	872 989 977 896	4 P-BCRGR 4 P-BCRGR 6 P-BCRGR 5 P-BCRGR 6 P-BCRGR
841635 CERCO/N7402705 841636 N7302901/1D000092 841637 HATTON 841638 NUGAINES 841639 MORO	N8402702 C1017772 C1013968 C1013740	HWW SWW HRW SWW CLUB	59.6 57.7 61.6 55.1 51.7	59.1 57.4 661.7 56.0 51.3	2.8	865 950 860 825 790	835 932 866 881 768	5 P-BCRGR 6 P-BCRGR 4 P-BCRGR 8 P-BCRGR 8 P-BCRGR
841640 N7302901/1D000092 841641 N7301901/1D000092 841642 N7301901/PAHA 841643 N7301901/PAHA 841644 N7301901/PAHA	N8402701 N8402801 N8404001 N8404002 N8404003	MMS MMS MMS MMS	60.8 57.2 56.0 54.0 55.3	60.7 57.9 56.6 54.2 55.7	23.5 1.2.5 1.8	820 890 925 960 1005	814 932 961 972 1029	6 P-BCRGR Soft White 3 SOFT WHITE? 6 P-BCRGR Soft White 6 P-BCRGR Soft White
841645 N7405901/N7402706 841646 N7405901/N7402706 841647 HATTON 841648 NUGAINES 841649 MORO	N8404902 N8404903 C1017772 C1013968 C1013740	SWW SWW HRW SWW CLUB	52.1 52.6 59.1 54.3 53.1	53.55 58.88 54.88 53.88	2.200.1	710 725 900 775 850	794 797 881 806 889	9 P-LVOL&BCRGR 9 P-LVOL&BCRGR 2 P-LVOL&BCRGR 9 P-LVOL&BCRGR
841650 HATTON/N7602101 841651 WA6365/N7602601 841652 WA6365/N7602601 841653 WA6365/N7602601 841654 N7500801/WA6368	N8406403 N8406403 N8406404 N8406401 N8406401	AMH MAMH MAMH MAMH MAMH MAMH MAMH MAMH	61.0 60.5 60.8 61.5	61.0 60.4 60.4 61.0	23.5 23.3 3.4 3.4 3.4 3.4	915 930 935 855	915 924 906 905 819	3 3 3 5 P-LVOL&BCRGR
841655 N7500801/N7602704 841656 841657 LINDON/N7602205 841658 HATTON 841659 N7000134/3/TP-107//N6700	N8401401 N8401401 N8405904 C1017772 N8401101	SWW HRW HRW HRW HRW	58.3 60.2 61.5 63.1	57.8 59.5 61.2 63.0 62.8	23.723 53.723 53.723	965 955 945 850 800	935 912 926 844 757	3 SOFT 2 4 Q-BCRGR 5 Q-BCRGR 7 Q-BCRGR
841660 841661 841662 CERCO/MCCALL 841663 CD/MC 841664 CER/N7407202//N7401202	N8401601 N8401801 N8402401 N8403202 N8403406	HRW HRW HRW HRW	67.9 64.3 63.4 60.4 62.2	67.3 63.7 63.4 59.6 62.0	23.55	900 910 895 860 850	863 873 895 810 838	3 6 P-BCRGR 6 P-BCRGR 7 P-BCRGR

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.	AB.	PRELIMI	PRELIMINARY HARD RED WINTER	RED WINT	<b>8</b>					PAGE 6
NURSCO 62			LIND, WA	Ą.					E. DONALDSON	DSON
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
841665 CER/N7407202//N7401202 841666 CER/CI17271	7401202	6/ N8403407 6/ N8403802	HRW	63.6	72.2	0.32	91.1	11.1	61.9	3H 4H

COMMMENTS: See "Remarks" for noted deficiencies.

P = Poor; Q = Questionable

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 63		0	CORVALLIS,	OR					W.E. KRO	KRONSTAD
LABNUM	VARIETY	ONGI	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		7	3/	
841667 WANSER		C1013844	HRW	62.0	70.1		86.1	8.4	59.4	19
841669 ORCR8313	•	C101///2	HRW	65.2	68.5		84.2	8.6	60.5	6L
	ρĺ	85HRELT7	HRW	61.6	70.3	0.40	87.6	χ σ. α. α.	63.0	Z Z
841671 ORCR8413		85HRELT8	HRW	63.2	71.0		86.4	10.5	62.0	Μħ
_	ν) i	5/85HRELT9	HRW	62.4	6.69		86.9	10.3	61.9	W9
		85HRELT10	HRW	63.2	71.3	0.35	88.7	9.3	59.9	71
			HRW	62.8	9.19		85.5	11.4	62.9	5H
			HRW	62.0	9.89		85.9	9.6	60.7	7M
841676 BH100			HRW	62.8	69.3		4.98	11.6	62.0	2H
			HRW	62.0	69.1	0,34	86.5	10.8	4	3.M
			HRW	61.6	68.2	0.33	4.98	9.4		3M
			HRW	62.0	65.0	0.35	81.7	6.6		8M
84 168U BH3U1 84 168 1 BH310			HRW	8.09	68.3	0.36	84.8	9.5	62.6	3M
			MY II	0.00	6.10	0.39	86.9	2.01		Mή
1/ Observed Values Cor	1/ Observed Values Corrected to 14% Moisture Basis.			5/ Part	Particularly Promising Overall Quality Characteristics	omising Ov	erall Qual	ity Charac	teristics.	
3/ Absorption at 14% N	$\overline{3}/$ Absorption at 14% Moisture Corrected to 10% Protein.	٠.		6/ Prom	Promising Overall Quality Characteristics.	11 Quality	Character	istics.		
4/ Observed Values Con	4/ Observed Values Corrected to 10% Protein.									
LABNUM	VARIETY	ONGI	CLASS	RARS	RARSC	MTIME	10%	0.10%	0000	SAMO

LVOLC BCRGR RMKS 4/	885 3 821 6 797 3Equal to Wanser 822 4Q-BCRGR 829 4Q-BCRGR	861 2 813 6 P-BCRGR 793 3 850 6 771 3 Q-MTIME	760 6 P-BCRGR 767 8 P-BCRGR 791 4 P-FYELD, Q-BCRGR 846 5 P-BCRGR
TAOL	775 685 785 785 810 860	880 770 880 825 870	810 730 785 815
MTIME	4.3 5.7 2.1	23.5.0 0.00 0.00	2 4 2 5 3 3 4 5 5 3 3 4 5 5 5 5 5 5 5 5 5 5 5
BABSC 3/	60.6 62.2 63.7 64.7	64.6 61.6 64.6 60.9 63.7	64.1 62.6 64.0 62.3
BABS	59.0 60.0 63.5 64.5	64.9 60.9 66.0 60.5 65.3	64.9 62.0 63.9 61.8
CLASS	HRW HRW HRW HRW	HRW HRW HRW HRW	HRW HRW HRW
ONOI	C1013844 C1017772 85HREL16 85HREL17 85HREL17	85HRELT9 85HRELT10	
VARIETY			
LABNUM	841667 WANSER 841668 HATTON 841669 ORCR8313 841670 ORCR8320 841671 ORCR8413	841672 ORCR8414 841673 TSN-B2 841674 CENTURA 841675 COLT 841675 BH100	841677 BH201 841678 BH202 841679 BH203 841680 BH301

COMMENTS: 85HRELT7, 8, and 10 have good milling but questionable bread crumb grain. See "Remarkd" for other deficiencies.

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN. WA.

NURSCO 64		S	CORVALLIS, OR	, OR					W.E. KRONSTAD	ONSTAD
LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	F PROT	MABSC 3/	MTYPE
841682 WANSER 811683 ORCR8511		C1013844	HRW	8.09	69.6	0.38	85.2	9.1	59.6	6L 5M
841684 ORCR8512		85HRELT12	HRW	60.8	69.8	0.44	82.4	0.0	60.6	- E-S
841685 ORCR8513		_	HRW	63.6	68.8	0,40	83.2	9.0	59.5	5M
841686 ORCR8514		85HRELT14	HRW	8.49	70.8	0.39	86.0	9.3	59.5	3M
841687 SWM765526*-04P-1H-4H-0S	-04P-1H-4H-0S	85HRRAN5	HRW	63.6	69.1	0.37	85.1	8.5	59.9	W9
841688 SWM754202*-02P-2M-1P-0H	-02P-2M-1P-0H	5/85HRRAN6	HRW	0.49	70.2	0.37	86.2	10.0	60.1	7M
1/ Observed Values 3/ Absorption at 14 4/ Observed Values	1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 9% Protein. 4/ Observed Values Corrected to 9% Protein.	ein.		5/ Part 6/ Prom	icularly P ising Overa	romising O	5/ Particularly Promising Overall Quality Characteristics 6/ Promising Overall Quality Characteristics.	ity Charac stics.	teristics.	

LABNUM	ONGI	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
				3/			4/		
841682 WANSER 841683 ORCR8511 841684 ORCR8512 841685 ORCR8513 841686 ORCR8514	C1013844 85HRELT11 85HRELT12 85HRELT13 85HRELT13	HRW HRW HRW HRW	61.4 60.7 62.0 60.7 60.2	61.3 61.2 62.3 60.7	23.593	775 615 720 710 735	768 646 739 710	9 VP- 8 VP- 8 VP- 8 VP-	VP-LVOL&BCRGR VP-LVOL&BCRGR VP-LVOL&BCRGR VP-LVOL&BCRGR
841688 SWM754202*-02P-2M-1P-0H	85HRRAN5 85HRRAN6	HRW	63.8	60.6	3.9	735	766 728	8 VP-	VP-LVOL&BCRGR

COMMENTS: Selection 85HRRAN6 appears particularly promising. All others have baking performance problems.

VP = Very Poor

USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

HRW REPLICATED PRELIMINARY YIELD TRIAL

LABNUM	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
841699 WANSER 841690 OWW77004*-1H-1P-1S-0H 841691 OWW76243C-01P-1H-5H-0P 841692 SWM789758*-15H-1P-0H 841693 SWM789767*-15P-1P-0P	C1013844 85HRRAN8 85HRRAN10 85HRRAN12 6/85HRRAN14	HRW HRW HRW HRW	60.4 61.6 60.0 60.0 63.2	66.2 68.4 64.1 65.5	0.39 0.46 0.45 0.43	81.3 79.6 75.7 78.5 82.1	8.9 7.9 8.0 7.5	58.5 60.7 63.4 61.3	7L 7L 5L 8L
841694 SW0780127B-1S-1P-0P 841695 SWM776874*-4H-1H-2S-0P 841696 SWM777736*-8H-2H-1P-0P 841697 SWM778098*-1P-1H-1P-0P 841698 SWM765568*-04P-2H-1P-0P	85HRRAN15 85HRRAN16 6/85HRRAN22 6/85HRRAN23	HRW HRW HRW HRW	62.0 64.4 64.4 64.4	66.3 71.3 68.0 69.2 66.2	0.40 0.46 0.36 0.38	80.6 83.0 84.4 84.7 82.4	9.2 7.4 9.0 10.0	58.3 59.4 58.5 60.4	2L 8L 4M 4M 6M
841699 SWM754493*-05P-3H-1H-0P 841700 YE747-3-2-2-0E	5/85HRRAN26 6/85HRRAN27	HRW	63.2	69.1	0.35	86.3	10.2	62.3 58.5	6M 3H
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Basis Corrected to 9% Protein. 4/ Observed Values Corrected to 9% Protein.	e Basis. ed to 9% Protein.		5/ Part 6/ Prom	icularly Prising Overa	romising O	Particularly Promising Overall Quality Characteristics Promising Overall Quality Characteristics.	ity Charac istics.	teristics.	

LABNUM	VARIETY	ONGI	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR RI	RMKS
841689 841690 841691 841692 841693	841689 WANSER 841690 0WW7604*-1H-1P-1S-0H 841691 0WW76243C-01P-1H-5H-0P 841692 SWM789758*-15H-1P-0H 841693 SWM789767*-15P-1P-0P	C1013844 85HRRAN8 85HRRAN10 85HRRAN12 85HRRAN12	HRW HRW HRW HRW	60.1 61.3 64.1 61.5	60.2 62.4 65.1 63.0	4.5 3.7 6.9	670 600 635 550 635	677 668 697 643	8 9 P-LVOL&BCR 9 P-LVOL&BCR 9 P-LVOL&BCR 8 = to Wanser	LVOL&BCRGR LVOL&BCRGR LVOL&BCRGR to Wanser
841694 841695 841696 841697 841698	841694 SW0780127B-1S-1P-0P 841695 SWM776874*-4H-1H-2S-0P 841696 SWM777736*-8H-2H-1P-0P 841697 SWM778098*-1P-1H-1P-0P 841698 SWM765568*-04P-2H-1P-0P	85HRRAN15 85HRRAN16 85HRRAN19 85HRRAN22 85HRRAN23	HRW HRW HRW HRW	60.2 57.5 63.2 63.1	60.0 59.1 60.2 62.1	23.25.2 2.58.20 2.56.20	640 640 645 740	628 739 645 678 651	8 Short mixing 9 P-BCRGR 8 = to Wanser 6 Better than 5 = to Wanser	BCRGR to Wanser ster than Wanser to Wanser
841699	841699 SWM754493*-05P-3H-1H-0P 841700 YE747-3-2-2-0E	85HRRAN26 85HRRAN27	HRW	63.0	64.0	2.6	785	7111	6 Better than 6 = to Wanser	tter than Wanser to Wanser

COMMENTS: This whole nursery is abnormal in both milling and baking properties based on the performance of Wanser. The check does not appear to

be Wanser. Se "Remarks" for ratings.

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HRW REPLICATED PRELIMINARY YIELD TRIAL

USDA, SFA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 66	4	PENDLETON, OR	. 0R					W.E. KRONSTAD	ONSTAD
LABNUM VARIETY	ONGI	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
841701 WANSER 841702 OWW77396#-4P-3H-0P 841703 OWW77396#-4P-3P-1S-0P 841704 SWM790490#-6H-0P 841705 SWM789758#-15H-2P-0H	C1013844 85HRRAN7 85HRRAN9 85HRRAN11 85HRRAN13	HRW HRW HRW HRW	63.2 63.2 62.4 63.2	68.6 67.5 72.4 66.9 67.9	0.36 0.38 0.37 0.38	85.1 88.6 82.3 82.5	88.9 9.9 9.6 1.8	58.3 61.1 58.7 61.3	5L 7L 4M 3M
841706 SWM777168*-1H-2H-1S-1P 841707 SWM777377*-4P-1H-1S-0P 841708 SWM777919*-3H-4H-2DD-0H 841709 SWM778033*-1H-1P-1H-0P 841710 SWM754397*-02P-3H-1H-0P1	85HRRAN17 85HRRAN18 6/85HRRAN20 5/85HRRAN21	HRW HRW HRW HRW	65.6 64.8 64.0 64.0	67.2 66.8 69.1 70.8	0.41 0.42 0.31 0.31	81.1 80.0 88.1 90.0 85.3	9.6 9.3 10.0 10.2	59.9 60.9 59.3 59.1	7L 7M 4M 4M
841711 SWM754397*-02P-3H-1H-0P2 841712 SWH72319-1H-2P-2H-0H	5/85HRRAN25 85HRRAN28	HRW	64.8 64.8	69.1	0.34	86.6	10.0	60.75	4M 3M
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 9% Protein. 4/ Observed Values Corrected to 9% Protein.	S. tein,		5/ Part 6/ Prom	icularly Prising Overa	omising O	Particularly Promising Overall Quality Characteristics. Promising Overall Quality Characteristics.	ity Charac istics.	teristics.	

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4		
841701 WANSER 841702 OWW780419A-1H-3H-0P 841703 OWW77396*-4P-3P-1S-0P 841704 SWM790490*-6H-0P 841705 SWM789758*-15H-2P-0H	3H-0P 9-1S-0P -2P-0H	C1013844 85HRRAN7 85HRRAN9 85HRRAN11	HRW HRW HRW HRW HRW	58.7 62.7 60.3 63.6 61.2	59.0 62.8 60.4 63.0 62.1	23.3 23.1 23.1 23.1	720 750 715 725 640	741 756 721 688 696	6 8 Q-BCRGR 8 Q-BCRGR 8 Q-BCRGR 8 Q-BCRGR	BCRGR BCRGR BCRGR BCRGR
841706 SWM777168*-1H-2H-1S-1P 841707 SWM777377*-4P-1H-1S-0P 841708 SWM777919*-3H-4H-2DD-0H 841709 SWM778033*-1H-1P-1H-0P 841710 SWM754397*-02P-3H-1H-0P		85HRRAN17 85HRRAN18 85HRRAN20 85HRRAN21 85HRRAN21	HRW HRW HRW HRW	62.2 62.9 62.0 62.0 62.1	61.6 62.6 61.0 60.8	333770	635 660 750 740	598 641 688 681	8 Q-BCRGR 8 Q-BCRGR 5 = to Wan 6 = to Wan	BCRGR BCRGR to Wanser, Ex. to Wanser, Ex.
841711 SWM754397*-02P-3H-1H-0P2 841712 SWH72319-1H-2P-2H-0H	3H-1H-0P2 2H-0H	85HRRAN25 85HRRAN28	HRW	62.4 60.5	61.4	2.8	765	703	3 9 VP-L\	VP-LVOL&BCRGR

Milli Milli

> Flour yield and baking properties were poorer than expected for Wanser. All selections judged according to performance of Wanser. See "Remarks" for deficiencies noted. COMMENTS:

Q = Questionable; VP = Very Poor; Ex. = Excellent

	September 1997			
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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 67	d	PULLMAN, L	I, LIND WA								
LABNUM VARIETY	ONGI	CLASS	WPROT	FYELD	FASH 1/	MSCOR	FPROT 1/	AGTRO	MABSC MTYP	E VISC	CODI
841713 BURTPULLMAN WINTER 841714 MORO 841715 WANSER 841716 NUGAINES 841717 PAHA	C1012696 C1013740 C1013844 C1013968	HWW CLUB HRW SWW CLUB	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	67.5 74.5 70.7 75.1	0.35 0.35 0.33 0.33	81.3 91.2 88.8 85.7 92.4	8.0 7.8 8.5 6.8	79.0 81.3 83.0 83.0	59.5 7L 52.4 5L 54.2 4L 52.5 1L	55 66 33	8.30 9.58 8.30 8.94 9.117
841718 YAMHILI 841719 HYSLOP 841720 LUKE 841721 DAWS 841722 STEPHENS	C1014563 C1014564 C1014586 C1017419 C1017569	MAS MAS MAS MAS MAS	0.88 8.90	72.4 71.9 72.1 71.2 73.3	0.35 0.36 0.33 0.35	86.8 86.4 87.4 87.8	8.6	82.5 81.5 87.0 88.0 89.0	53.0 31. 55.8 21. 54.8 21. 53.4 21. 53.8 51.	73 448 79 55	9.08 8.82 9.46 8.66
841723 HATTON 841724 TYEE 841725 LEWJAIN 841726 CREW 841727 HILL 81	C1017772 C1017773 C1017909 C1017951 C1017954	HRW CLUB SWW CLUB SWW	9.4 7.6 8.6 9.2	69.2 74.2 71.1 71.6 74.5	0.36 0.34 0.32 0.34 0.38	83.7 89.7 86.7 86.4	7.7 6.0 6.4 6.0 7.5	79.0 84.0 83.3 92.5 82.5	60.6 7L 54.3 2L 56.3 5L 54.9 2L 55.7 4L	41 58 39 64	8.10 9.02 9.36 9.12 9.14
841728 DUSTY 841729 841730 841731 841732	WA6912 0R0814 0R7794 0R8188	SWW CLUB SWW SWW SWW	10.1 9.9 8.9 9.4 9.4	74.7 74.9 73.3 71.9	0.36 0.38 0.34 0.39	90.5 89.7 88.5 84.2	8.0 7.7 7.6 6.6	82.0 85.5 85.5 86.5	54.0 4L 53.4 2L 54.1 5L 55.3 5L 53.9 5L	70 77 66 63 70	9.15 8.95 8.84 8.78
841733 841734 841735 841736 841737	ORCW8314 ORCW8318 SN121-81 SN354-78 ID745318	SWW SWW CLUB CLUB SWW	9.98.99	74.3 72.6 70.3 73.2 73.0	0.38 0.37 0.40 0.35 0.35	88.2 85.9 81.1 88.4	7.1	85.5 84.0 81.0 84.0	53.7 6L 53.0 5L 57.5 6L 54.8 5L 56.3 3L	55 56 58 58 58	9.39 8.81 8.66 9.35 8.79
841738 WAREDPULLMAN SPRING 841740 DIRKWIN 841741 MCKAY 841741 MCKAY	C1015926 C1017691 C1017745 C1017903 C1017904	HRS HRS SWS HRS SWS	13.6 12.4 11.8 14.1	72.6 68.7 71.6 66.5	0.32 0.41 0.45 0.37 0.37	91.0 79.9 80.9 79.8	11.7 10.6 9.6 11.7	77.0 70.0 76.0 71.3	60.4 4H 61.3 5H 54.9 2M 60.0 5H 54.2 3M	87	7.96 8.27 8.82 8.12 9.16
841743 WAVERLY 841744 EDWALL 841745 841746 841747	C1017911 P11477919 WA6917 WA7073	SWS SWS SWS SWS	13.52	72.2 70.9 70.6 70.1 68.6	0.39 0.37 0.42 0.42 0.46	84.2 83.5 80.6 79.3 74.9	10.2	77.0 70.5 69.5 70.0 69.0	58.7 3M 57.9 2M 57.2 6M 56.2 6M 57.6 8M	177 132 198 183 197	8.95 9.04 8.67 8.52 8.53
1/ Observed Values Corrected to 14% Moisture Basis. $3/$ Absorption at 14% Moisture Corrected to 10% Protei $4/$ Observed Values Corrected to 10% Protein.	sis. Protein.		(a) (b)	/ Parti	cular	Promi	sing Ove Quality	sing Overall Quali Quality Characteri	Quality Characteri cteristics.	teristi	· SS

6/ Promising Overall Quality Characteristics.

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 67	LABNUM	841713 BURTPULLMAN WINTER 841714 MORO 841715 WANSER 841716 NUGAINES 841717 PAHA	841718 YAMHILL 841719 HYSLOP 841720 LUKE 841721 DAWS 841722 SIEPHENS	841723 HATTON 841724 TYEE 841725 LEWJAIN 841726 CREW 841727 HILL 81	841728 DUSTY 841729 841730 841731 841731	841734 841734 841735 841736 841737	841738 WAREDPULLMAN SPRI 841739 WAMPUM - 841740 DIRKWIN 841741 MCKAY 841742 OWENS	841743 WAVERLY 841744 EDWALL 841745 841776 841747
	VARIETY	FR					SPRING	
PU	IDNO	C1012696 C1013740 C1013844 C1013968	C1014563 C1014564 C1014586 C1017419 C1017569	C1017772 C1017773 C1017909 C1017951 C1017954	WA6912 ORO814 OR7794 OR8188 ORCW8113	ORCW8314 ORCW8318 SN121-81 SN354-78 ID745318	C1015926 C1017691 C1017745 C1017903 C1017904	C1017911 P11477919 WA6917 WA7073 WA7074
PULLMAN, LIND WA	CLASS	HVW C1 UB HRW SWW CLUB	MAS MAS MAS MAS	HRW CLUB SWW CLUB SWW	SWW CLUB SWW SWW SWW	SWW SWW CLUB CLUB SWW	HRS IIRS SWS IIRS SWS	SWS SWS SWS SWS
IND WA	COD1C	8.14 9.37 8.18 8.56	8.91 8.44 9.18 8.35	7.92 8.74 8.96 8.83 8.83	8.93 8.81 8.54 8.72 8.52	9.07 8.55 8.45 9.15	8.10 8.32 8.78 8.26 9.06	9.14 8.81 8.65
	CAVOL	1130 1270 1130 1290 1345	1165 1245 1345 1315	1065 1300 1315 1330 1265	1300 1260 1255 1210 1240	1275 1275 1065 1290	1150 1170 1170 1075 1235	1255 1255 1245 1255 1255
	SCSOR	64.0 78.0 60.0 77.0 83.0	68.0 77.0 81.0 81.0 78.0	58.0 80.0 80.0 82.0 77.0	79.0 78.0 75.0 70.0	76.0 76.0 66.0 78.0	68.0 60.0 68.0 59.0 76.0	72.0 75.0 74.0 78.0
	WIIN	349 334 360	355 328 339 359 357	345 335 349 352	359 366 359 335 341	360 341 358	372	358 373 365 361
	NOSCO	90 73 75	73 68 72 75	77 70 80 57 77	73 5 76 5 77 5 77 5	79 55 77 78 55 76 55 55	6 75 5 76 5	68 6 74 5 74 5 70 5
	BABS	58.2 50.9 59.7 47.3	52.3 54.7 53.2 51.6	60.0 51.0 52.9 53.9	52.7 52.1 53.0 54.3	- 152-7 - 253-35 - 87-83-35	33.42.0	0.6 88.8 9.6
	MTIME	23.0 23.0 20.0 20.0	1.9 4.7 3.6	6.5 4.1 3.5 3.5	333333	23.5	5.6	1.9 10 4.0 10 4.4 5.8 10
	LVOL	725 645 720 725 535	675 555 685 625 550	630 565 730 575 695	695 715 565 620 655	625 690 580 690 710	105 1 030 815 095 890	000 970 033 995 035
	LVOLC F	849 766 824 923 695	759 723 883 793 724	773 785 946 795 845	815 825 733 752 799	799 834 740 844	000 993 839 990	898 958 961 969
	BCRGR	00000	80800	∞0 ∞0 ∞0 ∞0 ∞0	80000	00000	0 + 8 + 5	N0 m N N

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1000	7.75 8.79 7.95 8.78	8.60 8.74 8.95 8.95 8.84	8.75 7.72 7.84 8.86 8.75	8.99 8.92 8.66 9.06 7.76	8.71 7.57 8.93 9.08 9.02	7.84 7.74 8.85 8.06 8.80	9.01 8.76 8.70 8.63
VISC	117	136 137 117 136 100	102	60 63 1117 82	109 121 94 64	1114	138 105 145 153
MTYPE	3H 2H 3H 2M	33M 23M 23M	MMHHM 333113	1 N S N S N S N S N S N S N S N S N S N	N N N N N N N N N N N N N N N N N N N	34 27 27 14	ΣΣΣΣΣ
MABSC 3/	59.9 52.9 60.3 55.9	56.5 55.5 55.4 52.3	55.8 62.9 62.1 54.9 58.4	50.1 52.7 55.9 53.6 61.2	53.5 62.7 54.2 53.0 54.6	60.1 60.8 55.9 61.6 50.3	56.9 4 59.1 3 55.8 2 56.6 3 4 4 57.3 4
AGTRO	68.8 78.0 70.3 80.0	80.0 78.0 85.0 79.8 80.0	79.3 68.8 71.0 77.0	80.0 78.5 80.3 80.0 66.0	75.0 68.0 85.0 82.5 72.0	66.0 59.3 71.0 62.0 75.0	73.0 78.0 70.0 69.5 72.0
FPROT	10.0 10.5 11.4 9.9	10.9 10.7 9.9 10.0	10.6 12.2 11.2 10.0	9.8 9.9 11.0 10.3	10.6 12.2 10.1 9.7	11.8 13.0 10.4 11.9	10.5
MSCOR	80.4 89.4 92.4 85.5	81.8 84.1 84.9 81.7	82.4 89.4 91.1 88.7	87.4 88.2 83.2 86.3	86.2 87.5 89.3 90.2 78.9	83.0 85.2 83.1 86.4 83.7	81.2 82.2 80.9 78.8 78.8
FASH 1/	0.39 0.42 0.36 0.36 0.14	0.42 0.41 0.39 0.40 0.43	0.42 0.37 0.39 0.38	0.39 0.40 0.45 0.43	0.43 0.40 0.41 0.38 0.45	0.44 0.36 0.42 0.41	0.37 0.38 0.39 0.41
FYELD	68.7 76.4 75.2 71.7	71.3 72.3 72.7 70.6 75.5	72.2 73.7 75.8 74.6	74.2 75.1 73.4 74.9	75.2 72.8 75.8 75.6	71.4 69.7 72.3 73.1 72.3	69.6 70.8 70.1 69.1
WPROT	12.6 12.8 12.8 11.7	12.3 12.4 11.4 11.8	12.6 13.4 12.8 11.6	11.6 11.3 13.3 12.4	12.0 13.6 12.0 11.2	13.5 14.2 12.9 13.3	13.5 13.4 12.6 12.5
CI ASS	HIWW CLUB HIRW SWW SWW	SWW SWW SWW SWW SWW SWW	SWW HRW HRW CLUB SWW	SWW CLUB SWW CLUB HRW	CL UB HRW CL UB CL UB SWS	HRS SWS HRS SWS HRS SWS	SWS SWS SWS SWS SWS
ONG	C1012696 C1013740 C1013844 C1013968 C1014563	C1014564 C1014586 C1015376 C1017419 C1017590	C1017596 C1017727 C1017772 C1017773 C1017909	C1017917 C1017951 C1017954 WA6585 WA6820	ORCR8313 ORCR8313 SN121-81 SN354-78 C1014588	C1015926 C1017267 C1017413 C1017691 C1017745	C1017904 C1017911 P11477919 WA6916 WA6917
4UM VARIETY	748 BURTLIND WINTER 749 MORO 750 WANSER 751 NUGAINES 752 YAMHILL	753 HYSLOP 754 LUKE 755 SPRAGUE 756 DAWS 757 FARO	758 STEPHENS 759 WESTON 760 HATION 761 TYEE 762 LEWJAIN	763 TRES (WA6698) 764 CREW 765 HILL 81 766 JACMAR	769 PROSTORFER-EXTREM/TOB66 770 771 TWINLIND SPRING	773 WARED 774 BORAH 775 URQUIE 776 WAMPUM 777 DIRKWIN	778 OWENS 779 WAVERLY 780 EDWALL 781
LABNUM	841748 841749 841750 841751 841751	841753 841754 841755 841755 841756	841758 841759 841760 841761 841762	841763 841764 841765 841765 841766	841768 841769 841770 841771 841777	841773 841774 841775 841776 841777	841778 841779 841780 841781 841781

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NURSCO 67	PU	PULLMAN, LIND WA	IND WA								
LABNUM	ONOI	CLASS	C0D1C	CODIC CAVOL	SCSOR	N I	NOSCO	BABS	MTIME	TAOI.	1701.0
841748 BURTLIND WINTER 841749 MORO 841750 WANSER 841751 NUGAINES 841752 YAMHILL	C1012696 C1013740 C1013844 C1013968 C1014563	HWW CLUB HRW SWW SWW	7.75 8.84 8.06 8.76 8.84	1045 1235 1070 1235 1205	55.0 75.0 57.0 76.0	369 369 367	69 76 88	59.6 52.1 62.9 55.0 53.6	3 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	855 830 975 805 835	855 803 878 811 805
841753 HYSLOP 841754 LUKE 841755 SPRAGUE 841756 DAWS 841757 FARO	C1014564 C1014586 C1015376 C1017419 C1017590	SWW SWW SWW CI UB	8.72 8.80 8.94 8.56	1230 1260 1255 1260 1220	74.0 76.0 76.0 75.0	361 369 369 369 375	71 68 74 73	57.1 57.1 52.1 55.1 50.4	2.1	825 945 650 850 715	771 903 656 850 693
841759 WESTON 841759 WESTON 841760 HATION 841761 TYEE 841762 LEWJAIN	C1017596 C1017727 C1017773 C1017773	SWW HRW HRW CLUB SWW	8.82 7.90 7.93 8.86 8.79	1230 1080 1055 1255 1220	74.0 61.0 55.0 75.0	381 399 369	74 73 711	55.6 66.3 64.5 53.1 56.5	1.1.08 8.1.	840 960 890 820 900	804 824 816 820 820
841763 TRES (WA6698) 841764 CREW 841765 HILL 81 841766 JACMAR	C1017917 C1017951 C1017954 WA6585 WA6820	SWW CLUB SWW CLUB HRW	8.97 8.91 9.08 7.95	1245 1250 1205 1260 1050	73.0 77.0 72.0 76.0 60.0	369 372 377 375	75 73 74 75	47.1 48.8 53.6 50.6 64.3	2.000	500 625 875 835 960	512 631 815 819 811
841768 841769 PROSTORFER-EXTREM/10B66 841770 841771 841777 TWINLIND SPRING	OROB14 ORCR8313 SN121-81 SN354-78 C1014588	CLUB HRW CLUB CLUB SWS	8.76 7.75 8.94 9.06 9.10	1170 1025 1130 1200 1215	69.0 59.0 68.0 73.0 70.0	370 352 363 378	74 72 73 688	51.8 66.6 54.0 53.9 54.0	23.5 1.8 1.4	765 1000 905 880 800	732 864 900 897 758
841773 WARED 841774 BORAH 841775 URQUIE 841776 WAMPUM	C1015926 C1017267 C1017413 C1017691	HRS SWS SWS SWS	7.98 7.98 8.89 8.21 8.92	1120 1095 1290 1135 1190	63.0 59.0 76.0 63.0 69.0	373	72	62.1 63.0 53.5 64.2 49.6	2.2	980 1055 855 1063 700	868 869 831 945 634
841778 OWENS 841779 WAVERLY 841780 EDWALL 841781	C1017904 C1017911 P11477919 WA6916 WA6917	SWS SWS SWS SWS SWS	9.06 8.89 8.71 8.73	1290 1260 1260 1240 1240	76.0 75.0 77.0 73.0	374 367 379 365 356	79 71 76 73	57.1 58.0 54.6 58.5 58.3	33.03.44	965 940 970 1020	935 868 964 948 1007

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raci s		MSCOR FPROT AGTRO MABSC MTYPE VISC CODI	75.5 56.6 4M 137 8.91 72.5 56.6 4M 145 8.77 72.5 58.1 4M 141 8.64 74.0 56.8 4M 145 8.76 71.0 57.2 6M 152 8.61 74.5 57.6 3M 111 9.21
		r FPROT A	10.6 10.7 10.6 10.6 10.6
			78.7 76.9 76.9 79.2 75.8
		CLASS WPROT FYELD FASH	0.40
		FYELD	68.9 68.5 68.9 69.3 68.9
STRIPS	IND WA	WPROT	12.4 12.9 12.9 13.2 12.7
DRILL STRIPS	PULLMAN, LIND WA	CLASS	SWS SWS SWS SWS SWS
		ONGI	MA6918 WA6919 WA6920 WA7073 WA7074
USDA, SFA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.		VARIETY	MA M
USDA, SFA AF WESTERN WHEY PULLMAN, WA.	NURSCO 67	LABNUM	841784 841785 PENFWA 841785 841787 841788

DRILL STRIPS	

USDA, SFA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 67		PU	PULLMAN, LIND	IND WA									
LABNUM	VARIETY	DNO	CLASS	CODIC 4/	CAVOL	SCSOR W	MIIN	NOSCO B	BABS	MIIME	LVOL	LVOLC BG	BCRGR
841783 841784 841785 841786 841788		WA6918 WA6919 WA6920 WA7073 WA7074	SWS SWS SWS SWS SWS	8.97 8.85 8.70 8.83 8.67	1295 1285 1260 1265 1260 1345	76.0 75.0 74.0 74.0 73.0	335 348 354 382 378 366	72 5 72 5 73 5 75 5 74 5	56.9 59.0 59.0 59.0	3.0 3.9 3.9 3.7 1.4	1050 1065 1060 1010 1050	1014 1023 1024 974 1014	V02V8 9

Grown in cooperation with the Agronomy and Soils Dept., Washington State University, to provide the Western Wheat Quality Laboratory resource material for special research projects. We are grateful for their assistance. COMMENTS:

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USDA, SEA AR WESTERN WHEAT QUALITY LAB. PULLMAN, WA.

NURSCO 68			PULLMAN, WA	, WA							R.E. ALLAN
LABNUM	VARIETY	ONGI	CLASS TWT	TWT	FYELD FASH	FASH 1/	MSCOR	FPROT 1/	MSCOR FPROT MABSC MTYPE CODI	CODI	CODIC RMKS
841789 CALDWELL 841790 HART 841791 FILLMORE 841792 AUBURN 841793 ROLAND		84CB1675 84CB1676 84CB1677 84CB1677 84CB1678	SRW SRW SRW SRW SRW	60.5 57.0 60.0 60.0 59.5	73.5 68.0 74.1 70.8		92.6 85.2 94.2 90.9	9.9 10.1 10.0 10.0	55.7 3L 55.0 1H 56.5 3M 57.0 4M 54.4 3M	9.34 8.96 9.29 8.99 8.99	9.33 9.18 9.30 9.15
841794 STEPHENS 841795 LUKE 841796 DUSTY		84CB1613 84CB1412 84CB1618	MMS MMS MMS	56.5 54.5 56.0	74.5 71.1 70.6	0.38	91.7 86.9 86.1	9.48.98.7	55.0 2L 55.5 4L 55.1 4L	9.37	9.31 9.16 9.06
1/ Observed Values Corrected to 14% Moisture Basis. 3/ Absorption at 14% Moisture Corrected to 10% Protein. 4/ Observed Values Corrected to 10% Protein.	d to 14% Moisture Basis. The Corrected to 10% Protein to 10% Protein.	in.			5/ Par 6/ Pro	ticular	ly Prom Overall	ising (Quali	5/ Particularly Promising Overall Quality Characteristics. $6/$ Promising Overall Quality Characteristics.	ty Char stics.	acteristics.

All are satisfactory in milling properties with the exception of Hart, which is low in flour yield, all have acceptable cookie spread, the best being Roland and the poorest is Dusty after correction for protein. COMMENTS:

